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TRIPLE-SCREW WAR STEAMERS.

It is doubtful if any of the new vessels afloat in other navies ever developed the same steaming qualities as the Minneapolis when she made over 24 knots on one part of her official run between Boston Bay and the Maine coast. The Kaiserine-Augusta and the Gefion are sister vessels, built about the same time, and both capable of about 21 knots speed. Germany is building seven new vessels of the Freya class, all of which are to have three screws. Each ship is to displace 5,650 tons, have a sustained speed of at least 20 knots on a horse-power of 10,000. They will all be cruisers. A larger vessel is the armored cruiser Furst Bismarck, which is to have three screws, and is designed for a displacement of 10,600 tons, a horse-power of 13,000, and is expected to make 19 knots with each. None of these vessels seems deserving of being classed with the Minneapolis and Columbia, which have for years been considered the fleetest war vessels of their displacements in the world. France is building five battleships which are to have three screws, three of which are to be like the Charlemagne, her most powerful class, and will be ready for service shortly. The Charlemagne and Saint Louis are regarded by the experts of France as the best type of battleship building for the navy, and the success of the three screw system in ships of such great displacement is awaited with some anxiety by her experts who have not had full confidence in it. The displacement of these ships is 11,275 tons each, horse-power, 15,000, and a speed of 16 knots. They are to have the same speed with three screws that the new battleships recently contracted for by our Navy Department, are required to develop with twin screws. Two other battleships of the Henry IV class are also building and will be fitted with triple screws. These are of 9,000 tons displacement, 11,500 h. p., and a speed of 18 knots. Ten armored cruisers are either building or practically completed, which are all to have triple screws, high speed and enormous steaming radius, and be in all respects equal to the best of their type in the world. The Joanne d'Arc will be the best of these vessels and perhaps the most formidable, if not the fleetest armored cruiser in the world, equaling the immense vessels of this size lately turned out by British shipyards. This new French vessel is to have a displacement of 11,270 tons, or about equal in size to the American battleship Iowa, but her horse-power is to be at least 28,500, or 11,000 greater than that of the Columbia and Minneapolis, and three times that of the New York. A speed of 23 knots is expected, and if she equals this the Minneapolis will have her first rival. Six vessels of the Montcalm class and also of the armored cruiser type are building with three screws on displacements of 9,517, horse-power of 19,600 and a speed of not less than 21 knots. Three more armored cruisers of the Desaix class are also under construction with triple screws, each to be about 7,700 tons displacement, 17,000 h. p., and a speed of 21 knots. In addition there will be two commerce destroyers, the Chateaufort and Guichen, of displacements of 8,300 tons, horse-power of 24,000 and a speed of 23 knots. These are in many respects similar to the Minneapolis and Columbia, although larger and with greater machinery power. They are expected by the French designers to be the fastest vessels of the navy, outside of torpedo boats.

Russia is also building immense warships with three screws. Two of these are battleships, the Oslabya and Peresviet, which are designed to be her most formidable warships, and are expected to be the fleetest afloat. These vessels as contracted for are to be of 13,560 tons and 14,500 h. p., which it is believed will give them a speed of about 20 knots. Another immense vessel building with three

screws is to have a displacement of 14,000 tons and a speed of 23 knots. She is said to be of the commerce destroyer type, although the Navy Department has no official description of the vessel. Four other ships are also building of the Diana class to have displacements of 6,500 tons, 11,000 h. p., and a speed of 21 knots.

TO INCREASE THE NAVY.

The Naval Committee of the House, after an extended session on Tuesday, reached a conclusion as to the important items.

In all twelve new warships are agreed to, and three more are under consideration.

The committee has followed the recommendations of the Secretary of the Navy and has passed on the first, second and fourth classes of the new ships recommended by him.

These are three seagoing battleships of about 13,500 tons displacement each, carrying the heaviest armor and most powerful armament of vessels of their class, to cost, exclusive of armament and armor, \$3,600,000 each; three armored cruisers of about 12,000 tons each, carrying the heaviest armor and most powerful armament of vessels of their type, to cost, exclusive of armor, \$4,000,000 each; six cruisers of about 2,500 tons each, of high speed, good cruising qualities and most powerful ordnance suited to vessels of this type, to cost, exclusive of armor, \$1,141,800 each.

The other items not yet passed upon are for three protected cruisers of about 6,000 tons, to cost \$2,150,000 each.

MAKAROFF'S ICE BREAKER.

Admiral Makaroff, of the Russian Navy, has been a firm believer for years in the efficacy of ice-breaking machines. Russia has no ports, except on the Black Sea, that are open in winter. Makaroff has contended that there is no reason why the country should be deprived for half the year of the commercial sea routes. He has pinned his faith to ice breakers, and his idea of what an ice breaker should be was put into concrete form by the Armstrong ship building firm of England last year. The craft was launched late last fall and was towed away at once to the Baltic Sea to keep some of the Russian ports open this winter, and especially to keep St. Petersburg open to navigation. If she succeeds, the intention is to use her next summer to clear the way for a commercial fleet that will sail from the Atlantic into Arctic waters for the Yenisei river, Siberia.

The Makaroff craft is said to be built on the general lines of some of the ice breakers now in use, but is an improved and heavier type. The ice breaker in use at some of the Baltic ports of Germany is an oval-shaped and very heavy construction of steel. In front it curves gradually upward so that it can run up on the ice, which it breaks by its weight. In the rear is a wedge-shaped indentation, in which the bow of the steamer that pushes it is inserted. The appliance is securely attached to the vessel by chains and steel fixtures.

The enthusiastic Makaroff is confident that a practicable ice breaker weighing 20,000 tons may be built on his model. He says that with such a machine he could break his way to the North Pole, and that the attempt will be made just as soon as he has proved the efficiency of his machine for less gigantic achievements.

A COMMISSION of representative citizens from Montreal is at present making a tour of Atlantic Coast ports, with a view to getting ideas for the best development of the water front of their city, 15 miles of which is controlled by the civic commission. They propose to have a channel through the St. Lawrence 30 ft. deep to their port, and also build a \$750,000 timber dry dock.

NAVIGATION LAWS.

John Stuart Mill stands in the realms of economics upon a plane with Adam Smith and David Ricardo—one of the ablest free trade advocates of modern times. His writings upon political economy are full of uncompromising insistence for free trade, with one single exception. The eight section of chapter 10, of Book 5, of his "Principles of Political Economy," thus justifies whatever measures may be necessary for the maintenance of ships and seamen:

"The navigation laws were grounded, in theory and profession, on the necessity of keeping up a 'nursery' of seamen for the navy. On this last subject, I at once admit that the object is worth the sacrifice; and that a country exposed to invasion by sea, if it cannot otherwise have sufficient ships and sailors of its own to secure the means of manning, on an emergency, an adequate fleet, is quite right in obtaining those means, even at an economical sacrifice in point of cheapness of transport. When the English navigation laws were enacted, the Dutch, from their maritime skill and their low rate of profit at home, were able to carry for other nations, England included, at cheaper rates than those nations could carry for themselves; which placed all other countries at a great comparative disadvantage in obtaining experienced seamen for their ships of war. The navigation laws, by which this deficiency was remedied, and at the same time a blow was struck against the maritime power of a nation with which England was then frequently engaged in hostilities, were probably, though economically disadvantageous, politically expedient."

When the Dutch, by free trade methods, commanded the sea, we thus learn, England did not adopt that successful policy with which to supersede her rival and become mistress of the seas. She adopted on the contrary, a rigorously protective policy, and, when she had acquired and maintained command of the seas for two centuries under its operation, and had reached a point where it was no longer necessary, it was abandoned. Necessity is what justified Great Britain's protective navigation policy, then, as necessity would do it now. The same necessity justifies an American protective navigation policy, and the shipping bill now upon the Congressional calendars is the one thing needed to give this country its proper position upon the sea.

MASTERS AND PILOTS' ASSOCIATION.

Following named Grand Harbor officers will serve during the year 1899: Wm. S. Durkee, Grand Captain, Harbor No. 4, E. Boston, Mass.; Albert S. Fitts, Grand First Pilot, Harbor No. 43, Toledo, Ohio; John C. Silva, Grand Second Pilot, Harbor No. 13, Providence, R. I.; Benjamin T. Jenkins, Grand Captain's clerk, Harbor No. 6, Jersey City, N. J.; Luther B. Dow, Grand Purser, Harbor No. 5, Brooklyn; N. Y.; Chas. A. Benham, Grand Trustee, Harbor No. 42, Cleveland, Ohio.

THE recent revival of interest in the triple screw for warships has been widely commented on abroad, and much attention has been given to the stand taken so long ago as when the Minneapolis and Columbia were laid down by Commo. Melville, the present Chief of the Bureau of Steam Engineering. The Engineer-in-Chief has been an advocate of this idea ever since his advent into the bureau, and the reasons advanced by him several years ago are even more pertinent now than when first uttered. The experience gained in the use of the tripple-screw ships within the last year or two have given the engine builders of the old world one more occasion to look with respect upon the suggestions of the practical engineer at the head of the Engineering Bureau of the Navy Department.

NEWS AROUND THE LAKES.

BUFFALO.

Special Correspondence to The Marine Record.

George H. Breymann & Bros., of Toledo and the Donnelly Contracting Company, have conjointly bid on \$500,000 worth of dredging in Buffalo creek. Their bid is \$31,000 below the lowest bid of any others. It is safe to say they will be awarded the contract, but the matter has yet to come before the Buffalo city council.

E. J. Hingston, of the dredging firm of Hingston & Woods, is the president of the Lake Dredging Association, and for awhile he has contemplated calling the members together for the usual love feast, which ends in agreeing to rates and a sort of division of territory and is followed by the usual season's fierce competition, but he now says that he will not call the meeting unless members express a wish to attend.

There is a report in circulation that the officers of the proposed combination of lake shipyards have been decided upon. According to the report, James C. Wallace, of the Cleveland Ship Building Co., is to be manager; R. L. Ireland, of the Globe Iron Works Co., treasurer, and A. McVittie, of the Detroit Dry Dock Co., secretary. The story, however, has been denied, and sounds quite impracticable from this end of the line.

T. M. Moore, for fifteen years superintendent of the connecting Terminal Railroad Co., at Buffalo, has resigned that position. Mr. Moore will take charge of the Buffalo business of the Davidson line of lake vessels. The appointment of a local manager for lines like Capt. Davidson's is a new venture in the lake business. Heretofore this class of tonnage has all been handled by general agents in Buffalo; but as this fleet numbers twenty-six craft, Capt. Davidson concluded to have a manager to represent him at Buffalo.

Col. Partridge, superintendent of the New York department of public works, announces that the canals will open for navigation this year at the earliest possible date. He is making a special effort in this direction. Requests have been received from business and canalboat interests asking that the date of opening be earlier than last year. He believes that the canals will be ready for opening just as soon as the weather will permit. The superintendent has directed Chief Inspector Tubbs to hurry the ordinary repairs with all possible speed. These include repairs to locks, culverts and waste weirs.

The canalmen have a numerously signed petition asking that the canal be opened on April 1, as they say it used to be long ago. It has been open in April but once during the past ten years and that was the 28th. The repair work can hardly be got out of the way in time for so early an opening, even if the frost is out of the banks, but if the canal can be opened in time to be ready for the first grain fleet it will make a big difference in the season's business. The rush of business in New York harbor is over for the winter and the price paid for canalboats as lighters has dropped from \$3.00 to \$2.00. Boats are still busy, however. The Lehigh Valley railroad, which has no elevator in New York, has 400 boats there loaded with grain.

Already the various lake transportation lines are preparing for the coming season which all concede promises to be one of the most lively and prosperous in years. Appointment of masters and engineers, who will have charge of the annual fitting out and afterward sail the vessels to which they are assigned, is one of the first matters to be considered by the line managements. This year the Union Transit Co., of which Henry C. French is manager, is the first to announce the season's appointments of masters. The vessels of the Union Transit line and the captains who have charge of them during 1899 are as follows: Steamer J. M. Nicol, Capt. William McLean; steamer W. H. Stevens, Capt. Alex. Clark; steamer Avon, Capt. Norman McGuire; steamer Eber Ward, Capt. John L. McIntosh; steamer James Fisk, Jr., Capt. John Pearson; steamer Portage, Capt. John Tyrney.

PORT HURON.

Special Correspondence to The Marine Record.

Capt. James W. Montgomery is in Chicago on business.

Capt. Wash. Harrow, of Sault Ste. Marie, is in the city.

The tug L. Dimick is being entirely rebuilt at Thompson's shipyard.

Capt. Fred Manual, of the barge Comstock, will sail the steamer Westford for the Thompson Tug line.

Capt. R. P. Thompson has taken the contract to release the barge Fassett, ashore near Sand Beach. He is at work on her now. It is said he got \$3,000 to deliver her in Sand Beach Harbor.

The steamer Osceola is in Dunford & Alverson's dry dock, being extensively repaired. She will be refastened, almost an entire bottom, new keel the whole length, and when she comes out she will be in a first-class condition. They will expend about \$10,000 on her.

It is reported that ex-County Treasurer Moore, Fred T. Moore and George Moore, who control nearly 500 acres of land in the township of Fort Gratiot alongside of the F. & P. M. railway, will sink a shaft for the purpose of prospecting for coal. These gentlemen believe that coal underlies the township of Fort Gratiot and are willing to back their opinion with enough money to make the necessary examination.

CHICAGO.

Special Correspondence to The Marine Record.

Capt. Samuel Chamberlain, last year of the steamer Escanaba, has bought the steamer Luella Worthington and consorts D. R. Martin and J. B. Wilbur. Terms, private.

The steamer Louisville has been entirely overhauled during the winter and will be placed in commission between Chicago, St. Joe and Benton Harbor about February 20th.

The steamers City of Chicago and City of Milwaukee during the winter have received extensive repairs and are now in better shape than ever. Messrs. Graham and Morton anticipate a very large business this coming season.

The Countess Schimmelmenn, who visited the principal lake ports in her private yacht last summer, and who is wintering in Chicago, is attempting to establish a sailors' home. Her hopes of succeeding appear likely to be realized. Vessel owners and other business men and churches are being appealed to for the funds.

Grain elevators at this port now contain 29,343,000 bushels of grain as follows: Wheat, 6,467,000 bushels, corn 16,250,000 bushels, oats 3,916,000 bushels, rye 511,000 bushels, barley 2,199,000 bushels. Grain afloat consists of 2,525,000 bushels of corn and 79,000 bushels of rye. With this showing vessel owners ought surely to be feeling off color at their early chartering for winter storage and spring delivery as they have possibly lost ½ cent a bushel on the first trip by too early a fix.

The Iron Trade Review says: The week has also brought forth rumor and publication concerning a putative transfer of the Rockefeller vessel and Mesabi railroad properties to the Carnegie Steel Co. Doubtless such a transfer has been discussed in the same way that the building of a new short-line road from the Carnegie mines on the Gogebic range to a Lake Superior port, was mooted when these properties were acquired; but the purchase of vessels and railroad has not been made and there is to-day no competent authority for the statement that it will be made.

A dispatch from Duluth says: The owners of the steamer Arthur Orr are now anxious to get their big ship back. They filed papers Saturday in the office of the clerk of the United States Court, in which they ask to be permitted to become parties to the action brought against the vessel and insurance companies by the White Line Towing Company. Among the papers filed by them there is a waiver of cost, the claim of the owners, a stipulation for costs and an answer to the complaint of the White Line Towing Company. In the answer filed they ask that the court find for the libellants in a sum not exceeding \$2,000. The owners of the Orr are given as William L. Brown, Arthur Orr, C. W. Elphicke, William T. Carrington, Charles Z. Montague.

Mitchell & Co., of Cleveland, have sold three wooden vessels, two barges and a steamer, to Buffalo and Chicago firms. The boats will be placed in general trade next season. They are at present laid up here. The vessels sold are the steamer Edward Smith No. 2, which was purchased by Connelly Bros., the contractors, of Buffalo, for \$45,000. The barge Seldon E. Marvin was sold to the Edward Hines Lumber Co., of Chicago, for \$8,000, and the barge Robert L. Fryer to C. A. Calbic, Edward Wood and the Telson Lumber Co., of Chicago, for \$8,000. All are wooden vessels but they are in first-class condition. The steamer Smith is loaded with corn at present, but the two barges are light. They were the joint property of William H. Gratwick and Robert L. Fryer, of Buffalo; Edward Smith, of Detroit; and Mitchell & Co., of Cleveland.

Graham & Morton, Chicago, St. Joe & Benton Harbor line have started the construction of new a dock and passenger and freight warehouse at the foot of Wabash avenue and South Water street which, when completed, will be one of the finest and largest on the lakes. The building will be 66 feet front and 167 feet deep, four stories high, of steel, with stone front and trimmings, strictly fire-proof, and to contain every modern improvement, such as automatic lifting gang planks, endless conveyors and conveying freight chutes, electric freight and passenger elevators. Freight and ticket offices will be located on the ground floor. On the second floor will be located the main offices, also ladies' and gents' waiting and toilet rooms. A steel balcony will decorate the front of second story for band stand and observatory. On the ground floor there will be a passenger promenade or way from the ticket office to steamer. The premises will be ready for occupancy April the first and completed in full by May the first. At present the Graham & Morton offices are located in the Leonard block, 42 River street.

THE ground for the new dry dock at West Superior has been broken. The frost in the ground makes the use of dynamite necessary to a depth of 3 feet. The work of excavating will be by day labor and only Superior laborers will be employed. No steam shovels will be used. After this week it is probable that a large crew of men will be kept at work night and day on the excavation.

NEVER before has there been such activity in the iron mining business on the Lake Superior ranges as that characterizing the year 1898. The total number of gross tons of iron ore shipped down the lakes during 1898 equals the enormous figures of 25,550,885, exceeding the shipment of 1897 by 2,542,014 gross tons. With the exception of the Vermillion range, all the Lake Superior ranges have provided more iron during 1898 than in 1897. The total output of all the mines during the past 43 years is 134,107,787 gross tons.

CLEVELAND.

Special Correspondence to The Marine Record.

Capt. James Davidson, of Bay City, is at Hot Springs, Ark.

Capt. John Cassidy, a well-known lake master, who formerly lived here, died at Owosso, Mich., Tuesday. He was 63 years old.

The Globe Iron Works Co. will fit the steamer Samuel Mitchell with a steam towing machine. She will also be fitted with stockless anchors.

Capt. J. H. Kelleran, of Buffalo, for the dry dock company and Capt. C. E. Benham, for the owners of the vessel, held the survey on the wooden steamer City of Glasgow.

It has been decided by the C., L. & W. Railroad Co. to build a large harbor tug for work at Lorain the coming summer. Their tug Cascade is unable to take care of the business alone.

Capt. Jansen, of this port, who was thought to be lost on the coast with the other members of the crew of the schooner H. D. Alverson, which is owned by J. C. Gilchrist, returned home this week. He says the vessel is at Boston and is in good shape.

The iron ore sales agents and brokers could almost take a rest for the remainder of the season. Small lots of certain grades of ore will no doubt have to be placed, but the bulk of the season output from Lake Superior has already been sold, or say about 14,000,000 tons.

It is a little too early yet to make a positive announcement, but it is expected that the large steel steamer now nearing completion at the Lorain yards of the Cleveland Ship Building Co., to the order of the Wolvin syndicate, can be launched a week from next Saturday.

The Upson-Walton Co. has begun an action in the Common Pleas Court, Canton, Ohio, against the Ney Manufacturing Co. to recover \$3,591.16 alleged to be due on a contract for furnishing the defendant with 20 tons of Manila rope of various sizes, states the Canton Repository. The plaintiff alleges it kept every part of its contract, and that no part of the purchase price has been paid.

The Cleveland Steamship Co., of Mentor, yesterday increased its capital stock from \$125,000 to \$250,000. The company is composed of local vesselmen and coal and ore shippers. The company will operate the steamer M. A. Hanna, which will come out early this season, and another steamer, not yet named, which is a duplicate of the Hanna, and is building at the yard of the Globe Iron Works Co.

The wooden steamer City of Glasgow, which tried dry docking when loaded with coal and fell off the blocks, is not so badly damaged as might have been expected. A survey being duly held it was found that an expenditure of about \$8,000 would put her in like good order and condition previous to the casualty. The delay necessary to make repairs can't be counted as a loss at this season of the year.

Henry A. Hawgood has sold the schooner bearing that name to the Scully Towing & Transportation Co., of New York, for \$30,000. Mr. Hawgood closed the deal in New York last week. The schooner Hawgood is one of the vessels that was chartered by the Atlantic Transportation Co. and sent to the coast last fall. She was built by F. W. Wheeler, of Bay City, and came out in 1886. She carried about 2,400 tons of ore.

The Oswego Palladium states that the Northern Transit Co., of Cleveland, is seeking a passenger and freight connection with the New York, Ontario & Western, and Delaware, Lackawanna & Western railways. St. Lawrence river business for the coming season is also being solicited. Last season the company operated the steamers Empire State and Badger State, and if the additional facilities now sought can be secured one or two more steamers will be secured for the line.

The schooner Chickamauga, which was purchased from Capt. James Davidson, of Bay City, by W. C. Richardson and others of this port, will be towed by the steel steamer Samuel Mitchell, managed by Capt. Richardson. The Chickamauga is one of the largest wooden vessels on the lakes. It is understood that the parties who bought the Chickamauga were figuring on building a steel vessel, but owing to the crowded condition of the ship yards they were unable to get a boat contracted for early delivery.

The Brown Hoisting & Conveying Machine Co. has been awarded a contract by the Navy Department for coal handling machinery for the coaling station at Mare Island Navy Yard, California. This is the sixth coaling station for the United States Navy to be equipped with the Brown Co.'s machinery, and constitutes all the stations so far awarded. The Brown Hoisting & Conveying Machine Co. has also been awarded the contract for a 100-ton steel floating crane for the Brooklyn Navy Yard. This crane will weigh over 1,000 tons.

Quite a little season chartering in ore was done in a quiet way during the past week. The feeling is firm, but rates hold steady at 60 cents from all Lake Superior ports and 50 cents from Escanaba. Shippers from the last named port would like to line up more tonnage. Some Marquette contracts that run to November 1 were closed during the past few days at 60 cents; and from the vessel owners' standpoint this is the best business that has been done. The ore is to be delivered at Ohio ports. The coal freight market is very quiet, and it cannot be learned that any season chartering has been done. Shippers will probably hold off until sales are made.

DETROIT.

Special Correspondence to The Marine Record.

All of the ship owning companies elected officers here this week.

The Stewart Transportation Co.'s election resulted as follows: President Geo. Peck; vice-president and general manager, C. F. Bielman; board of directors, Geo. Peck, A. E. Stewart, C. F. Bielman, G. H. Leshner, John J. Barlum.

Should the plan of utilizing dynamite for the release of the car ferry steamer Shenango No. 1 from the ice in Lake Erie fail some of the Detroit river ferry steamers may be sent to her assistance, as they were to the Shenango No. 2 three winters ago.

Ship yard proprietors have been approached looking towards a consolidation of all interests and the appointment of a general set of officers. It can not be learned here that the Detroit Dry Dock Co. are in it, although Mr. McVittie has been mentioned as the secretary of the combination.

Naval Constructor Lee, of Baltimore, Md., has been ordered here to inspect the revenue cutter Fessenden. Capt. Shoemaker, chief of the revenue marine service, states that the Fessenden will be given a thorough inspection, and when all needed repairs are made she will be one of the finest revenue cutters in the service.

Capt. John Nolan died at Manistique, Mich., January 27, aged 42 years, of cancer of the stomach. Capt. Nolan entered the employ of the Booth Packing Co., at Manistique, six years ago, as one of the masters of its fleet of fishing tugs. During that time he had charge of the Anderson, Maxwell, and lastly the Oval Agitator. He was an expert pilot and had papers entitling him to navigate all the Great Lakes and their connecting waters.

The Wheeler ship building plant will be in operation as soon as steel can be secured from the mills. On account of the great boom in ship building all over the United States, the various steel plate industries are rushed to keep up with orders. Orders for steel for the boat to be built at W. Bay City have been placed and the stock will commence arriving day by day, but it will probably be the end of the month before sufficient material has arrived to warrant the full and complete opening of the yard.

The American Steamship Co., filed articles of incorporation in Lansing, Mich., Friday, with a capital stock of \$110,000. The incorporators are James, Hugh, William C. and Gilbert McMillan and F. E. Driggs, of Detroit, William E. McMillan, of St. Louis, Mo., and Senator Nelson W. Aldrich, of Rhode Island. Utica, Macomb county, is selected for the principal office. The company will build a new freighter for the lakes on the lines of the Senator, but 1,000 tons larger. The contract has already been let to the Detroit Dry Dock Co. The cost of the steamer will be \$250,000.

John Stringer, who has been acting as assistant to Harbor-master O'Neil, at odd times during the past summer, was formerly master of a sailing vessel on the lakes, and knows all the old craft and their masters. This was many years ago, and when Mr. Stringer made a trip up the lakes last summer he found almost everything had changed. When he first went on the lakes, he says the sailing vessels used to go in whatever course the captain choose to lay out. Now the vessels all travel one path, he says, and it is staked out all the way, so there is no danger of their getting lost. He thinks if he lives long enough he will probably see the vessels operated in a manner somewhat similar to a street car system, with an overhead trolley and wire.

The Star lines held their elections in their office at the foot of Griswold St., this week and the result was as follows: White Star line—President A. A. Parker; vice-president, J. W. Millen; treasurer, John Pridgeon, jr.; secretary C. F. Bielman; general manager, B. W. Parker; the officers with the addition of A. W. Colton, and Robert T. Gray, constitute the board of directors. Red Star line—President, A. A. Parker; vice-president, J. W. Millen; treasurer, John Pridgeon, jr.; secretary, W. Howie Muir; general manager, B. W. Parker; the officers and C. F. Bielman constitute the board of directors. Star line—President and general manager, A. R. Lee; vice-president, T. B. Cole; secretary, C. F. Bielman; Robert Maxwell, J. H. Muir and the officers constitute the board of directors.

CLEVELAND MARINE ENGINEERS' BALL.

The eighteenth annual ball of the Marine Engineers' Beneficial Association was held at Trostler's Academy, on Superior street, last evening, and the large hall was crowded with members and friends of the organization. There were 24 numbers on the dance program. Supper was served at midnight. The committee work was well cared for by the following gentlemen: John F. Quinn, Evan Jenkins, Henry McAuley, William H. Kennedy, H. H. Farr, A. L. Wilcox, John B. Heyward, Fred Harmon, John N. Kirby, William Kennedy, A. J. Millet, John McMonagle, Andy McDonald, Alonzo Arnold, W. C. Clark, O. N. Steele, L. D. Weeks, W. E. Donovan, Patrick V. Cain, William Most, Grant Donaldson, Charles Walsh, P. Lyons, John Riffin, Arthur Hyde, George Allen, J. G. Donahue, Henry Burton, Peter Rivers, William Meikleham.

It is estimated by Wisconsin lumbermen that this winter's cut will exceed former years by anywhere from 100,000,000 to 150,000,000 feet. The wages that will be paid this winter for chopping are placed at about \$215,000 per month, and from 2,000 to 3,000 more men will in all probability be employed this year in the woods about the head of the lakes than last year.

FLOTSAM, JETSAM AND LAGAN.

The Polson Iron Works Co., Toronto, have been awarded a contract to build a new steamer for the Richelieu River Navigation Co. to accommodate the passenger traffic on the St. Lawrence river and Lake Champlain. The vessel is to be a screw steamer, 112 feet long, 22 feet 6 inches beam, to draw 6 feet of water and to have a speed of 15 miles per hour. The contract calls for the delivery of the boat ready for service about the middle of June next.

Officials of the Eastern Minnesota Railway visited Superior last week and inspected the Allouez ore dock with the view of making extensive improvements. There are now 150 pockets with a capacity of 30,000 tons. These pockets are to be raised for the accommodation of vessels of the largest size, and the length of the docks is to be increased so that 40 pockets may be added. The intention is to handle 1,000,000 tons of ore the coming season. It is considered highly probable that in 1900 the capacity of the dock will be increased to 57,000 tons daily.

The keel of the new battleship Maine, the contract for the construction of which was a few months ago awarded to the Cramps Ship Building Co., will probably be laid on Feb. 15. This date will be the first anniversary of the explosion in Havana harbor of the ship of that name, which resulted in the loss of 266 men of the United States navy and a serious and intense feeling throughout the country against the Spanish. The Cramps also announce that efforts will be pushed forward to have the new battleship launched on Feb. 15, 1900, the second anniversary of the Maine disaster.

Capt. Thomas Christensen of Milwaukee, has commenced suit against Leathem & Smith Towing and Wrecking Company of Sturgeon Bay, in the sum of \$1,500, for the value of the schooner Annie Dall, lost at Jacksonport on the 23d of October last. Capt. Christensen charges the wrecking company with incompetency, negligence and poor judgment. He also claims that the crew, with the exception of the engineer and two others, were unfit for work more than one half of the time they were attempting the recovery of the schooner. The suit was brought in Milwaukee but was taken to Door County on a change of venue, and the case will come up for trial in the circuit court next September.

Capt. McDougall, of the American Steel Barge Co., said Saturday at Duluth that he could see no reason why the talked of combine of steel shipbuilders should not go through. All other lines of steel industry are combining, and it is said that, as a matter of economy, steel vessels can be built at a profit only by having the constructing of vessels under one head, which does not necessarily mean that all the shipbuilding firms on the lakes will be included in one corporation, but merely a combination for building purposes. Officials of the Steel Barge Co. say that the trip of Mr. Ford to New York and Cleveland has nothing to do with any proposed combination, and it is intimated that the combine at present only exists in theory.

SHIPPING AND MARINE JUDICIAL DECISIONS.

Demurrage Where Required to Discharge at Wharf of a Vendee.—Where a bill of lading for a cargo requires its delivery to the consignee "or assigns," the master knows that the wharf of discharge may not have been selected; and the fact that the consignee sells the cargo before its arrival and designates the wharf of the buyer as the place for its discharge, does not change the rule as to demurrage for delay in being provided a place to discharge. The Viola, 90 Fed. Rep. 750.

Navigable Waters.—In this country, waters, to be navigable in law, must be capable of navigation, in fact, as highways for transportation of commerce. A bay or arm of one of the Great Lakes, some 4,000 acres in extent, which was patented to the state as swamp land, and which, though of sufficient depth for navigation where it opens into the lake, is throughout the remainder of its extent of an average depth of no more than two feet, and rarely more than three feet, and is covered through the summer with grass and rushes, is not navigable water, but merely a marsh, and subject to private ownership. Toledo Liberal Shooting Co. et al. vs. Erie Shooting Club, 90 Fed. Rep. 680.

Salvage on a Government Transport.—Where a libel was filed to recover compensation for salvage services rendered to a vessel, which, though not commissioned in the navy of the United States, was owned, manned supplied and armed by the United States, and used in the transport service, held, that the judicial tribunals of the country cannot entertain suits in which the sovereign power of that country is sought to be made a party respondent. Held, also, that the property of a state or nation, cannot as a general rule, be proceeded against in its courts. Held, also, that the court has no jurisdiction over the vessel in question, although she is merely a transport. The Thomas A. Scott, 90 Fed. Rep. 746.

Demurrage—Delay in Discharging Cargo.—While, in the absence of qualifying circumstances, it is usual and customary at the port of Boston for a consignee to have a berth provided at which a vessel may discharge her cargo within twenty-four hours after her arrival, by the custom of the port the presence at the designated wharf of other vessels, which arrived earlier, is considered such qualifying circumstance, and in such case vessels are required to wait their turn to discharge without demurrage for the delay so caused. Held, that such custom was a reasonable one within reasonable limits, and under ordinary circumstances, and that a vessel loaded with lumber was not entitled to demurrage because of a delay of fifteen days, caused by so waiting her turn to discharge, if not appearing that the wharf was too small for the ordinary business of the owner, nor that he willfully or negligently permitted a large number of vessels to collect for discharging at the same time. The Viola, 90 Fed. Rep. 750.

GREAT EASTERN VERSUS OCEANIC.

The following interesting comparison of the Oceanic and the Great Eastern is furnished by the London Times:

In recording the advent of another great steamship one's thoughts naturally revert to the Great Eastern; and this is the first time since that vessel was built that it has been possible to speak of a new steamer as "the largest ever constructed." It will be, therefore, interesting to give some particulars of the older ship for the purpose of comparison. Her length on the upper deck was 692 feet, whilst between perpendiculars it was 680 feet; she was, therefore, 13½ feet shorter than the Oceanic. In regard to breadth, the Great Eastern far exceeded the new White Star boat, being 83 feet on the beam, and, therefore 15 feet the wider of the two. The depth of the Great Eastern was 58 feet, but that measurement is from her keel to her highest deck, whilst above the upper deck of the White Star ship there are a promenade deck and a boat deck. The displacement of the Great Eastern is generally given as 22,500 tons, but we have been unable to find out to what draught this corresponded. It is said, however, that the weight of the ships and engines at the time of launching was 12,000 tons; the weight of iron in the hull is put down at 8,000 tons, and the capacity for coal and cargo is stated at 18,000 tons. If we add the weight of ship and engines to the latter figure we get a displacement of 30,000 tons, which is somewhat greater than that of the Oceanic. A naval architect considering the figures as to length, breadth, and depth alone would expect to find a far greater disparity between the two ships, for the excess of length of the Oceanic over that of the Great Eastern is trifling when considered in connection with the great excess of beam of the older vessel.

The explanation of the apparent discrepancy would be at once apparent to any one examining the Oceanic as she now lies on the stocks at Belfast, and comparing her with the drawings of the Great Eastern. Scott-Russell, who was responsible for the shape of the Great Eastern, was, as is well known, completely imbued with the advantages of a hollow bow and fine ends. Mr. Pirrie, the head of the firm that has built the Oceanic, holds opposite views. He believes in long ships of moderate beam, and in place of the long hollow bow carries the main body of the ship well forward and well aft. The Oceanic, too, has a very square midship section, whilst the Great Eastern had the rising floor and rounded bilge of the period.

VESSELS CLASSED.

Vessels classed and rated by the American Bureau of Shipping in the Record of American and Foreign Shipping, this week, are as follows:

American screw (tug) Swatara, owned by the Philadelphia & Reading Railroad Co., American tern Freddie Hencken, American tern Manuel R. Cuza, and American schooner Charles A. Swift.

GREAT BRITAIN immediately began to give a preference for iron ships, as soon as she found herself no longer able to build wooden ones in competition with other nations. If, to-day, she should find herself unable to build ships as cheaply as could be built in other countries, and her ship-owners began to purchase foreign-built ships, then would an agitation ensue, which would compel Great Britain to preserve, for the defense of the British empire, at whatever sacrifices of economic principle might be necessary, the shipbuilding which is her last great national industry that gives her such industrial, financial, commercial and naval eminence in the world.

CORRESPONDENCE.

We do not hold ourselves responsible in any way for the views or opinions expressed by our correspondents. It is our desire that all sides of any question affecting the interests or welfare of the lake marine should be fairly represented in THE MARINE RECORD.

WINTER NAVIGATION OF THE LAKES.

PELEE ISLAND, February 6th, 1899.

To the Editor of The Marine Record:

For many years this very important question has been discussed with more or less intensity and then suffered to drop into indifference again. I think I may opine that in the minds of practical men its entire feasibility is fully admitted. Since Captain William Clinton, of Windsor, Ontario, nearly 30 years ago built the ferry steamer Victoria, after which the other Detroit River ferries have been modeled and improved, the fact of winter navigation has been fully established.

But with the enormous growth of the lake marine, new and extended necessities have arisen, and the imperative need of such service is conceded.

If there existed across or through the Great Lakes natural winter channels like that which is open to-day from Wheatley, Ontario, via Point Pelee, Pelee Island and Kelley's Island to Sandusky, Ohio, to the eastward of the Islands, entirely free of ice all winter long, simply because the ice is held up the lake by the chain of islands, then this winter navigation would be but a simple problem.

If, then, we may say that this question is no longer a matter of doubt, the only question remaining is the financial one! "will it pay?" I think so. By the building of a few powerful steamers, with bows very like the ordinary whale-back, but especially strengthened to stand the strain of ice-breaking, and with a beam somewhat greater than her consort, so as to give room for their ready passage in her wake, a steamer or heavy steamers, can be built which will head the van and be the pilots of their fleets.

As all the nautical world knows, the modern ice-breaker does not cut, she simply rides the ice down, by and under her receding stem, as she glides over and bears it down beneath her.

The ponderous hulls which crowd our waters with only slight modifications, can be made to work both winter and summer, and the additional expense, especially if these vessels lead fleets of freighters, will not be a bar to success.

F. B. M. CORMICK,

COMBINED GAS AND BELL BUOY.

NEW YORK, February 6, 1899.

To the Editor of the Marine Record:

Dear Sir:—I have read with very much interest your communication on "Practical aids to lake navigation," signed by a MARINE RECORD subscriber, which appeared in your issue of January 5th, and also the letter from John Maurice which was published in the RECORD of February 2d, on the same subject, and in which he refers to the earlier communication from "Subscriber."

The inference is readily gained by one reading Mr. Maurice's letter that Pintsch gas lighted buoys are not efficient aids in thick or foggy weather, and I wish to combat that inference, for I think that the experience of the shipmasters on the Great Lakes has been such as to prove the efficiency of the gas buoys under all conditions.

In the very heavy fogs of course the light is not seen at a great distance, but we are told by navigators that there is a halo effect shown in the fog about the light which makes its location readily discernible, and furthermore, the writer has evidently overlooked the fact that we now have a combined gas and bell buoy which is particularly well suited for the conditions prevailing during most heavy fogs. The bell is rung automatically by the flow of the gas, and therefore the ringing of the bell is not dependent upon the condition of the water. When you combine a bell signal with the light, I believe you will grant the buoy becomes pretty nearly a perfect aid.

Yours very truly,

WM. ST. JOHN.

THE Russo-Chinese Railway Company is about to give out orders for the building of six swift ocean steamers, intended for a regular line to run from the terminus of the Manchurian Railway to Talienwan, Port Arthur, Shanghai, and Nagasaki, and back. Two of the boats are to be built at Newcastle, one at Greenock, one in Holland, and the other two in Germany. They will carry both passengers and goods, and sail at fortnightly intervals to begin with. The service is expected to commence in 1903.

RECEIPTS OF GRAIN AT THE HEAD OF THE LAKES.

Grain receipts at the head of Lake Superior for the first month of 1899 show a larger business than any previous January. The shipments of wheat were heavier than in any preceding January. The total receipts of all grain amounted to 5,095,209 bushels against 2,414,818 bushels in the corresponding month of 1898. Wheat receipts for the month amounted to 2,932,073 bushels. The shipments were 563,017 bushels.

The comparatively heavy shipments were made possible by the cut in east bound rail rates in December. The rates were restored on the first of the year, but a great deal of wheat was carried on the old rate during the month of January on contracts that had not been completed by the first of the year.

It was in the movement of corn to this market, however, that the market did shine in January. The receipts amounted to 1,133,015 bushels against 308,641 bushels for the corresponding month of last year. The amount received on the greatest previous month in the history of the market was 845,000 bushels in March, 1898, and the next greatest amount was 486,884 bushels in February, 1898. Last month's receipts almost equaled the combined receipts of the two previous greatest months in the history of the market. During the year of 1898 the receipts of corn at the head of the lakes amounted to 3,342,981 bushels. Last month's business was equal to about one-third of last year's entire receipts.

BIDS ON DREDGING.

Abstract of proposals received at Duluth, Minn., by Major Clinton B. Sears, Corps of Engineers, U. S. A., for dredging in Portage Lake ship canals, Mich., opened Feb. 3, 1899:

| NAME AND ADDRESS OF BIDDER. | For Dredging. Per cu. yd. Scow Meas'mt. | | Use of Dredging Plant. Hour. | Total. |
|--|---|--|---------------------------------|--------------|
| | Section 1. 476.081 cu. yds. more or less. | Section 2. 1,256- 751 cu. yds. more or less. | | |
| 1. Duluth Dredge & Dock Co., Duluth, Minn..... | 27 | 15 | \$12.00 | \$317,054.52 |
| 2. James Pryor, Houghton, Mich..... | 24 | 12 | 10.00 | 265,069.56 |
| 3. S. O. Dixon, Racine, Wis..... | 26 | 12½ | 12.50 | 280,874.93 |
| 4. Hingston & Woods, Buffalo, N. Y..... | 11 | 9 | 30.00 | 165,476.50 |
| 5. Carlin, Stickney & Cran, Detroit, Mich..... | 15 | 11 | 14.00 | 209,654.76 |
| 6. Lydon & Drews Co., Chicago, Ill..... | 11.9 | 10 | 15.00 | 182,328.73 |
| 7. John H. Gillett, Marquette, Mich..... | 17½ | 12½ | 15.00 | 240,408.05 |
| 8. Arthur H. Vogel, Milwaukee, Wis..... | 27 | 13½ | 15.00 | 298,203.25 |
| 9. Adolph F. Bues, Milwaukee, Wis..... | 26 | 13 | 12.00 | 287,158.60 |

The firm of Hingston & Woods being the lowest bidders the contract will no doubt be placed in their hands.

NOTICE TO MARINERS.

DEPARTMENT OF MARINE AND FISHERIES }
OTTAWA, CANADA, January 24, 1899. }

DOMINION OF CANADA—ONTARIO.

1. WELLERS BAY RANGE LIGHTS.—A recent examination of Wellers Bay, Lake Ontario, shows that the spit which makes north from Bald Head is gradually extending across the entrance and has reached the line of range at a point about 8,500 feet from the front light. In entering it is therefore necessary to open the lights on the starboard hand to pass the spit. A further examination of the spit and of Wellers Bay will be made after navigation opens, and fuller notice of the changed conditions will be given.

2. REMOVAL OF THE WRECK OF THE MONITOR IN RIVER ST. MARY.—The United States Hydrographer has given notice that the wreck of the Monitor, which foundered on the 25th September last, just above Point aux Pins, river St. Mary, above the "Soo", was removed on the 30th of November.

F. GOURDEAU,

Deputy Minister of Marine and Fisheries.

All bearings, unless otherwise noted, are magnetic and are given from seaward, miles are nautical miles, heights are above high water, and all depths are at mean low water. Pilots, masters, or others interested are earnestly requested to send information of dangers, changes in aids to navigation, notices of new shoals or channels, errors in publications, or any other facts affecting the navigation of Canadian waters to the Chief Engineer, Department of Marine and Fisheries, Ottawa, Canada.

COAST SHIPBUILDING.

The Pusey and Jones Co., Wilmington, Del., has signed a contract for the construction of a steel steam yacht for William Hester, proprietor of the Brooklyn Daily Eagle. The vessel is to be designed by Naval Architect H. C. Winttingham, of New York, and will be a handsome model. The deck fixtures will be of the highest class used in yachts. The dimensions will be: Length, 128 feet; breadth of beam, 16 feet 6 inches; depth, 9 feet 9 inches. She will be fitted with a triple expansion engine, with steel shaft and bronze wheel. The boiler will be of the latest and most approved type.

The Harland & Hollingsworth Company, Wilmington, Del., has received a contract to build a new steamship for the Windsor line, to ply between Philadelphia and Boston.

Following closely to the announcement that the Boston Towboat Company had placed a contract for the construction of a large steamer with the Maryland Steel Company of Baltimore comes the news that they had ordered another steamer from the same builders. She will be in every particular a sister ship to the one ordered several days ago. Work will commence on both steamers at once, and they will be ready for delivery about October. They will meet the requirements of the American Shipmasters' rules or as now known, the American Bureau of Shipping, for classification in the Record of American and Foreign Shipping and to carry a 17-year rating. The dimensions of the boats will be as follows: Length between perpendiculars, 324 feet; length over all, about 345 feet; beam, molded, 47 feet; depth molded at side, 28 feet. No wood will be used in their construction except where actually necessary. The hold will be divided into four large compartments by transverse, water-tight bulkheads. A cellular water bottom 40 inches deep will extend from the collision bulkhead forward to the stern-pipe bulkhead aft, forming a protection for the whole length of the ship. Amidships will be located the engines and boilers. The engines are to be of the inverted, direct-acting, triple-expansion type, with cylinders 21, 35 and 56 inches in diameter. On the main deck forward a topgallant forecabin will give accommodations for the crew. Aft of this are to be three large hatches, and then the bridge house which is to contain a large saloon, opening out of which are to be four large staterooms. Aft the bridge house are to be four large hatches to the after hold. At the extreme end of the main deck is to be located the towing engine house, which will contain a powerful towing machine. The vessels will also be provided with steering engines, hoisting engines and steam capstans. On top of the bridge house is to be located a chart room, built entirely of steel. On top of the chart house is to be a pilot house, also of steel. The steamer will be provided with two steel pole masts each, fitted with cargo booms on each mast. While the steamers are being constructed for the coal carrying trade, it is likely that they will be used in general freighting between the United States ports and Cuba and Porto Rico. These vessels will no doubt be commanded by Captain Henry Lewis, formerly of the company's steamer Saturn, purchased by the government during the late war, and Captain Smith, now in the steamer Orion, running in the company's service from Newport News.

EASTERN FREIGHT REPORT.

Business continues to narrow down, and, in addition to the evident preferment of other centers of delivery to ours by importers of grain in Europe at the moment, we have to face a speculative advance in prices on our market, which threatens to further reduce the volume of business for this commodity and acts as an additional blow to freights. As the demand for our other exportable commodities is likewise limited, this market, unfortunately, lacks all recuperative power at the moment, and we can only hope for an early revival of the enquiry for our cereals, as the means to bring about a turn for the better in the present declining tendency of our freight market.

Business in sailing vessels remains restricted by the continued scarcity of vessels suitable for certain trades, whilst in other directions there is little or no enquiry. Only a few charters are reported for case oil to the Far East, since owners seem unwilling to accept even the lately advanced rates, and a further improvement seems therefore not unlikely, whilst the demand for barrel oil to Europe apparently has entirely subsided for the moment. There is still a fair demand for general cargo tonnage to the Colonies, and rates remain quite firm. This equally applies to naval stores and there is also some enquiry from the lumber trade for South America, but rates show no appreciable change.

THE CULINARY ART ON SHIPBOARD.

"Of course, sir," said the old sailor, as he sipped leisurely at a glass of hot rum, "it stands to reason that the most important man on board of a ship are the cook. Any other man, if so be as he slips his wind from any cause, or gets washed overboard and forgits to come back, can be replaced and things go on much as usual. If the skipper dies, why there's the mate, as has got to be a navigator or else he can't ship; and of course, he's got to be a sailor man, and there you are. He jist becomes the captain. Of course, if the mate steps out, the second mate takes his place; and one of us chaps could, at a pinch, hop into the cabin and make some kind of a steward. Well, there's the carpenter; 't ain't every one as can handle a tool; I couldn't whittle a pine stick round if my life depended on it. (I'll take jist one more of them rums, and in cold weather, sir, I don't konw anythin' more soothin'; you mustn't take too many of 'em; well, that ain't agin 'em; you mustn't do too much of anythin'; even prayin' may be overdone.)

"But the cook, sir, he can't be replaced. And when I say the cook, I mean the cook; 'cause, bein' in the galley and peelin' spuds and even fiddlin' well, don't make a cook, though I never seen a good cook as wasn't a good fiddler, and what the connection is 'twixt fiddlin' and cookin' I don't know; it's intimate, no mistake.

"It's a old forecas'le sayin', as the Lord sends grub and the devil sends cooks; and sartin sure the great majority of 'em as I've been shipmates with ought to have gone to the devil, whether they come from him or not. But then agin, once in a while, you will git with a cook whose meanest creations will make you cry like a child for more, and whose duff is the most heavenly artistic inspiration as can be imagined. Ah! sir—(well, to oblige you, I will have another) nothin' of that kind can ever be found ashore, though I'm told as they has cooks even on the land; and I've heern it said of wimmin as 'she was a good cook,' which, of course, no woman never were, and there ain't no record of sich in history. There's cooks, leas'twise that's what they ships for, in big hotels and gentlemen's houses, great swell fellers, Frenchmen or Dagoes, or other outlandish chaps as says 'yaw' for yes; but what do they do compared to a real cook aboard ship?

"Them land chaps has a big army of scullions under 'em, and all they has for to do is to think. It's all very well for to say as one good man lookin' on are worth three at work, but what would one of these chaps do in a ship's galley cookin' a dinner for perhaps a dozen of the after guard and may be twenty of us afore the mast, and she a-wallowin' along under tree close reefed topsails, a-puttin' her lee rail under at every lurch, and occasionally takin' a sea over the weather bow as will sweep through the galley and nigh hand-lift the cook himself off his feet, let alone his dishes and pots and pans, which, for the most part, is a-playin' 'Isaac and Josh' from one side of the place to the other, and only one man for to do all the workin' as well as the thinkin'? Ay! sir, them's the times for to try to cook, and it are on such occasions that the soul of the really great artist makes himself manifest.

"Lookin' back over a sea life of over thirty years, I think the most soul elevatin' cook as ever I knowed were a nigger of the name of Scipio Thompson, as was shipmate along of me in the ship Rubicon, of Bath, Capt. Peleg Marshall, leavin' Liverpool on the 10th of December, 1842, for Boston; a good enough ship, but too much giv' to beans, and even the most gloriously inspired cook can't do much with beans when they be to be a steady diet day in and day out for five days out of the week. I'm told as there were a caterer of a swell yacht club as thought as he'd giv' his guests somethin' as they wasn't used to for a change, and he fed 'em on beans. Well, sir, for the first week it were a immense success. Bein' yachtsmen, of course, they weren't sailors, and most of 'em never hadn't tasted beans afore and enjoyed 'em dreadfully. But on the second week they weakened, and I've heern tell as they keel-hauled that caterer, and he never held up his head no more.

"So on this here ship, although we had beans, fried, baked and biled, there were a sameness to 'em, arter all; and Thursdays and Sundays, which, as you must know, is duff days, was looked forward to with great interest and welcomed with delight, 'cause old Scipio's duff were poems. How under heaven any man could make out of flour, water, slush, and salt anythin' so delightful, no man can tell. It was a genius—a inspiration. 'Thank God,' a chap of the name of Joe Williams said one Sunday, when he was feelin' pretty good, havin' jist finished our duff which that day had been as light as a feather, and as

sweet as a nut—'Thank God,' says he, 'as Christmas comes this year on Tuesday, 'cause this week we'll have three duff days instead of two;' a sentiment which all of us coincided into. And turnin' of the subject onto duff, we come to the conclusion as our Christmas duff must have plums into it.

"There were only one objection to this, and that were, we didn't have no plums. Reckonin' up the matter, we come to the conclusion as it weren't no use askin' the old man for any 'cause, although a good man so far as treatment was concerned, he sailed dreadfully near the wind when it comes to grub. He couldn't help it, 'cause they all do it as is born in Maine.

"I might tell you how we got our plums for that duff but I shan't. I promised then that I wouldn't never giv' it away, and I won't.

"We got 'em, that were the great pint—(please let him fill mine up again) and old Scipio—what a man that were to fiddle and cook!—promised us he'd keep mum as to the stealin' of the plums, and would turn out somethin' in the way of duff that Queen Victoria would be proud of. He didn't have no easy job of it either, for on the night of the 24th we caught one of the most terrificalist gales of wind as we'd had for the whole passage, beginnin', like they all do on the north Atlantic, from the s'uth'ard and shiftn' in a hard squall to the north'ard and west'ard; bringin' us down to close reefed topsails and reefed foresail, and in one of the ugliest cross-seas as ever were seen. She jist labored dreadful, and it were difficult keepin' a pot on the galley stove, let alone cookin', and I don't believe as there were another man on 'arth 'cept that old nigger as could have cooked that duff that day.

"We kind of mistrusted him, the weather were that awful bad, and from time to time some of us would go to the lee galley door and say, 'Well, Scip, old boy, how are the duff comin' on?' and he'd reply, 'Fust rate; cookin' as easy as if she was anchored on a lake.'

"Well, sir—(thank you; I will jist have one more)—bein' as it were Christmas, and nothin' at all for to do on deck in consequence of the gale, the mate said as how all hands could eat together sociablelike; and at one bell, arter the watch had turned out and dressed themselves, we all musters in the forecas'le and sends the boy with the mess kid to the galley for the duff. Joe Williams, which were a-laughin' all over his face at the idea of how nice it were goin' to taste—and I don't mind tellin' you as he had somethin' to do with the plums—thought he'd be a bit funny, and he says, a-imitatin' a Holy Ape as he'd heard, 'For what are we about to receive, may the Lord—he didn't git further than that, his eye bein' on the boy a-comin' half way 'twixt the galley and the forecas'le door, a luggin' the mess kid with two royal big plum duffs into it, the weight bein' as much as he could stagger under, and we hedn't never ought to have trusted him in sich a sea, for she giv' a big dive, and nigh had the whole Atlantic ocean come over the weather bow completely fillin' the leese side away up level with the bulwarks, and the last we seen of that boy were he were a-goin' over the lee rail preceded by the mess kid, to which he dutifully clung.

"Well, sir, volunteers was called for to try to git that boy, and nigh hand every man stepped out; but if I express my sentiments, sir, there weren't one of 'em as cared much for the boy, but was animated by a intense desire for to rescue that duff.

"It weren't no fool job, sir, but we had splendid boats and we got off safe, and we got that boy; more than that, sir, we got the duff, the young whelp havin' held on to the mess kid like grim death, and made a life preserver out of it.

"It were rather cold, sir, and a trifle salt on the outside, but I've never tasted duff afore or since as could equal that duff, and in the many Christmas dinners I've ate since then I've had none I enjoyed so much.

"And that young beggar of a boy ate jist as much as any grown man, notwithstanding his bein' a bit tuckered out fust off; seein' which Joe Williams says:

"'Eat hearty, you young brat, for that duff were the means of savin' your life; we never wouldn't have gone for you in sich a sea, but we couldn't a-bear for to think a minute of losin' our Christmas duff.'—Capt. Roland G. Coffin.

THE damage to the steamer Penobscot, through foundering in Lake St. Clair when caught in the ice jam, are quite serious. Surveyors think that the cost of repairs will be \$20,000.

MERCHANT SEAMEN LAWS.

A law of importance to seamen, passed by Congress and approved December 21, 1898, will go into effect on February 20. It is an act relating to American seamen and for their protection and the promotion of commerce.

The act is one the International Seamen's Union has labored for and its passage is a matter of satisfaction to its members. It applied to the high seas rather than the seamen of the Great Lakes, but seamen generally feel that the act gives them advantages. Among its provisions favorable to seamen it provides that in case of desertion or casualty, resulting in the loss of one or more seamen, the master of a ship, if obtainable, must ship a number of seamen equal to the number whose services he has been deprived of by desertion or casualty. That in cases where the services of any seaman terminates before the period contemplated in the agreement by reason of loss or wreck of vessel, the seaman shall get wages to the time of the wreck and such seaman shall be treated or transported to port of shipment. Clauses about wages provide as follows:

The master or owner of any vessel making coasting voyages shall pay to every seaman his wages within two days after the termination of the agreement under which he shipped, or at the time such seaman is discharged, whichever first happens; and in the case of vessels making foreign voyages, or from a port on the Atlantic to a port on the Pacific, or vice versa, within 24 hours after the cargo has been discharged, or within four days after the seaman has been discharged, whichever first happens; and in all cases the seaman, shall, at the time of his discharge, be entitled to be paid, on account of wages, a sum equal to one-third part of the balance due him. Every master or owner who refuses or neglects to make payment in manner hereinbefore mentioned, without sufficient cause, shall pay to the seaman a sum equal to one day's pay for each and every day during which payment is delayed beyond the respective periods, which sum shall be recoverable as wages in any claim made before the courts; but this section shall not apply to the masters or owners of any vessel the seamen on which are entitled to share in the profits of the cruise or voyage. Every seaman on a vessel of the United States shall be entitled to receive from the master of the vessel to which he belongs one-half part of the wages which shall be due him at every port where such vessel, after the voyage has commenced, shall load or deliver cargo before the voyage is ended unless the contrary be expressly stipulated in the contract; and when the voyage is ended, every such seaman shall be entitled to the remainder of the wages which shall then be due him.

The law has numerous provisions giving masters protection from improper and unlawful acts of seamen.

THE SKY IN FEBRUARY.

Astronomical data for February, 1899, furnished to the MARINE RECORD by the Washburn observatory:

Mercury is still a morning star, but will cease to be such before the close of the present month, when its orbital motion will carry it to the eastward of the sun. Venus is the most brilliant object in the early morning sky, although the proportion of the disk illuminated by the sun and visible to us is increasing, the apparent brightness of the planet is diminishing, because of the present continual increase in its distance from the earth. On Feb. 10 Venus reaches its greatest apparent distance west of the sun, and after that date its time of rising will come continually nearer that of the sun. Mars is the bright reddish star seen high in the eastern sky during the evening. Jupiter and Saturn are to be seen in the southeastern sky in the morning. Jupiter is much the brighter of the two and the further west, but the distance apart is diminishing, and by the close of the month they will cross the meridian at the same time—about 4 o'clock in the morning.

The times of sunrise and sunset at Milwaukee for the month are as follows:

| | SUNRISE. | SUNSET. |
|-----------------|----------|---------|
| February 1..... | 7:07 | 5:04 |
| " 11..... | 6:55 | 5:18 |
| " 21..... | 6:41 | 5:31 |
| " 28..... | 6:30 | 5:40 |

The times of the moon's phases are:

| | |
|--------------------|------------------------|
| Third Quarter..... | February 3, 11:24 a.m. |
| New Moon..... | " 10, 3:32 a.m. |
| First Quarter..... | " 17, 2:52 a.m. |
| Full Moon..... | " 25, 8:16 a.m. |

The principal fixed stars visible during the month in the evening hours are: To the west, Capella, Aldebaran the Pleiades and the bright stars of the constellations Cassiopeia and Andromeda near the meridian, Sirius and the bright stars of the constellation Orion; to the east, Procyon, Regulus, Castor and Pollux.



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NON-MARINE INSURANCE.

As is well known, many underwriters at Lloyd's accept risks outside those connected with marine insurance. We have given in the past several illustrations of this, some of a most amusing nature; in fact, as has been shown in Fairplay, London, it is difficult to name anything from a race horse to a rainbow that cannot be insured at Lloyd's on some terms or other. A late instance of non-marine insurance placed at Lloyd's has come before the Commercial Court. A Mrs. Seaton made advances to Major-General Barwell and took a promissory draft for £15,000 in respect of them. The loan was guaranteed to Mrs. Seaton by Sir Frederick Seager Hunt, at that time M. P. for Maidstone; and Mrs. Seaton, on her husband's recommendation, insured the solvency of Sir F. Seager Hunt at Lloyd's for six months, the first six months, it would seem, of 1898, the rate charged being £2 10s. per cent. for the period. The underwriters thus guaranteed the guarantee of Sir F. S. Hunt—"making" in the words of Mr. Seaton, "a bank note" of acceptance. The risk appears to have been placed at Lloyd's by Mr. Burnand, the business being introduced to him by Mr. Lion, a broker, who represented that the guarantor of the acceptance was very wealthy, and that he had only guaranteed another large acceptance. Amongst the names on the policy were those of Mr. Burnand and Mr. Heath, and it was against these two underwriters that the actions were raised. The risk was against Sir F. Seager Hunt having a receiving order made against him or calling a meeting of his creditors. In the spring of 1898, that is, during the currency of the policy, Sir F. Seager Hunt got into financial difficulties and a meeting of his creditors was called. The promissory note was not met at maturity, and Mrs. Seaton claimed the amount of the insurance. The underwriters declined to pay, alleging misrepresentation and the concealment of material fact. Amongst other things they said that it had not been communicated to them that Mrs. Seaton was getting 30 per cent. for her advance; had they known that, they urged, they would not have entertained the business.

THE LAST OF A MONITOR.

There has departed from the League Island navy yards, never to return to any government station, a relic of two wars, the single turreted monitor Wyandotte, which went out of the Navy Department's hands through having been sold to a Philadelphian for a paltry sum, and destined for the junk yard. Having passed the stage of usefulness, like her sister ships that are still held at an expense, the Wyandotte was put up for sale by the government three months ago. A naval board appraised her as worth \$9,000 and then sealed proposals were asked for.

There were five bidders for the relic, the highest sum offered being \$12,631.52, which was bid by Charles Gibbon Davis, of Philadelphia. The monitor was ordered turned

over to Mr. Davis a few days ago and he has had the vessel towed away to await a breaking up, her present value lying largely in the iron that entered into her construction.

The insignificance of the purchase price is seen when it is known that the original cost of the hull and machinery to the government was \$633,327.84. The Wyandotte was the second highest priced monitor of the fleet that were constructed under the act of April 17, 1862, the Mahopac, built by Z. F. Secore, of Jersey City, having cost \$635,374.55. The monitors that now lie at the navy yard were constructed under the same law, the keels of fifteen of them having been laid immediately after the passage of the act.

Most of the monitors were finished in time to be of good service, but the Wyandotte was not completed by her builder, Miles Greenwood, of Cincinnati, early enough for her to make a record as a fighter. The monitor is 225 feet long and 43.8 feet wide, with a draught of 13.6 feet and 2,100 tons displacement. Her engines, which were sold with the vessel, are of the single-screw grasshopper type, which gave a speed of six knots an hour. The armor is five inches on the sides, the turret being ten inches thick. The Wyandotte carried the usual battery of the monitors, two 15-inch smooth-bore guns.

After having been kept in ordinary after the civil war up to a few years ago, the Wyandotte was hauled out and fitted up for the use of the Connecticut Naval Reserves. She was stationed at New Haven. When the recent war broke out a new main deck was put down, and other repairs were made when the vessel was ordered to Boston, where she remained, manned by naval reserves, until the monitors were ordered back to navy yards after the close of the war.

GRAIN WEIGHING.

The Minnesota Supreme Court has just handed down a decision of much moment to the grain and vessel interests of the Great Lakes. Short grain cargoes have long been a perplexing problem to vesselmen and a burden to the lake trade. Especially has this been so from the head of Lake Superior, where the cargoes are weighed out of the elevators by a weighman appointed under the Minnesota grain and warehouse laws. These laws provide that his weights shall be conclusive, so the vessel is required to make good any shortage. Several vesselmen who have suffered losses of this sort have brought action to test the validity of the law. In one of these cases the Vega Steamship Co. brought action against the Consolidated Elevator Co., and Friday, the Supreme Court decided in favor of the vesselmen. The court holds that it is unconstitutional for the Legislature to make such weighing conclusive and where there is evidence that a substantial mistake has been made in weighing, the vessel may recover. Vesselmen are confident that several other cases against elevators will be decided the same way.

SUPERIOR'S LAKE COMMERCE.

The following table shows the tonnage and value of same handled at the port of Superior, Wis., for the past 16 years:

| | Tons. | Value. |
|-----------|-----------|------------|
| 1883..... | 15,730 | \$ 115,105 |
| 1884..... | 86,423 | 306,120 |
| 1885..... | 213,127 | 791,778 |
| 1886..... | 200,724 | 1,217,286 |
| 1887..... | 346,794 | 3,319,754 |
| 1888..... | 730,942 | 5,684,571 |
| 1889..... | 889,408 | 7,959,675 |
| 1890..... | 1,083,938 | 14,454,869 |
| 1891..... | 1,676,755 | 20,236,585 |
| 1892..... | 2,050,319 | 26,875,610 |
| 1893..... | 2,429,801 | 39,758,440 |
| 1894..... | 2,596,514 | 42,416,712 |
| 1895..... | 3,362,000 | 64,966,054 |
| 1896..... | 3,137,575 | 59,635,999 |
| 1897..... | 4,266,745 | 69,542,744 |
| 1898..... | 4,314,373 | 75,000,000 |

SENATOR Hanna's shipping revival bill is an eminently practical measure. It provides government aid, graduated according to the value of the ship, for American vessels engaged in the foreign trade. This aid is necessary to induce American capital to venture into owning ships in the foreign trade, where they are obliged to meet the competition of a European merchant shipping that is annually subsidized and bountied, in various ways, to an amount exceeding twenty millions of dollars. The Hanna shipping bill recognizes, as our war with Spain has emphasized, that a merchant shipping and merchant seaman, are essential to national defense. Thus valuable and impossible unless encouraged by the government, the government must pay for their assistance to the nation.

TREASURY DECISIONS.

SHIPMENT OF SEAMEN ON UNITED STATES
TRANSPORT VESSELS.

Shipments of seamen may be made before United States shipping commissioners on United States transports.

TREASURY DEPARTMENT,
BUREAU OF NAVIGATION,
WASHINGTON, D. C., January 25th, 1899.

SIR: This office is in receipt of your letter, dated the 23d instant, relating to the shipment of seamen on United States transport vessels bound from your port to foreign ports.

In the case of vessels merely chartered by the United States, the crew of which constitute merchant seamen of the United States within the meaning of the laws of Congress, the men may be shipped before you, as in other cases of vessels bound to foreign ports; but if the vessel, in any case, is owned by the Government, and the seamen are so enlisted or employed as not to be merchant seamen of the United States, shipment before you is not required. It may be made, however, if the persons concerned agree, but no charge is authorized for the service.

Respectfully yours,

EUGENE T. CHAMBERLAIN, Commissioner.

United States Shipping Commissioner, New York, N. Y.

STAMP TAX ON BILLS OF SALE OF VESSELS AND
PROBATE CERTIFICATES.

Acknowledgements of bills of sale of vessels and probate certificates showing authority of executor to transfer titles of vessels must be stamped under internal revenue laws.

TREASURY DEPARTMENT,
BUREAU OF NAVIGATION,
WASHINGTON, D. C., January 25, 1899.

SIR: This department is in receipt of your letter, dated the 23d instant, stating that a bill of sale of one-sixteenth of the schooner Sarah D. J. Rawson, by heirs of G. L. Boynton, signed and acknowledged by three of the heirs and the executor of one of the heirs, deceased, is presented to your office for record. The acknowledgements of two of the heirs and of the executor are not stamped; nor is there a stamp on the probate certificate showing the authority of the executor to act as such.

As a reply to your request for a decision whether each certificate of acknowledgement and the probate certificate should be stamped under the internal revenue laws of the United States, this department has to state that it does not appear from your communication whether or not there is more than one certificate of acknowledgment. If one certificate of acknowledgment included the names of all the heirs and of the executor, but one stamp was necessary under the department's circular of August 9, 1898, heading "Bills of Sale" (Synopsis 19730).

As regards the probate certificate, the department is of opinion that a stamp is required in view of the regulation, paragraph 45, Internal Revenue Circular 503, revised (Synopsis 20323), to the effect that certificates given by an officer not for a public or governmental purpose, but for private interests and use, are liable to the tax if they are given in obedience to any law which requires them to be given when called for.

Respectfully yours,

W. B. HOWELL, Assistant Secretary.

Collector of Customs, Belfast, Me.

ANOTHER KEEL TO BE LAID.

It now seems certain that within a week or two the Flint & Pere Marquette railroad will place a contract for another steel railroad car ferry to be a duplicate of the Pere Marquette in so far as dimensions and power are concerned. In upper works, however, she will differ from that well-known craft in having 100 staterooms where the Pere Marquette has but 30. The passenger department looked for a big passenger business between Manitowoc and Ludington. The business panned out as expected and in a short time the Pere Marquette proved too small to accommodate the crowd of people who wished to cross over on her.

On the completion of the new boat to go into commission next fall the Pere Marquette will be placed on the Milwaukee-Ludington route. Her thirty staterooms may not be enough to care for the people, but that matter will be allowed to rest for a time and all attention given to the freight traffic. The new boat will take care of the Manitowoc-Ludington route. The business of this line across Lake Michigan has in the last three years increased to enormous proportions. In fact, the business of all lines across the lake, especially in the winter time, has grown wonderfully and has attracted the attention of transportation men all over the country.

DETROIT TRANSPORTATION COMPANIES ELECT OFFICERS.

The transportation companies of Detroit elected officers as follows this week:

Detroit & Cleveland Steam Navigation Co.: James McMillan, president; Hugh McMillan, vice president; J. H. McMillan, treasurer; David Carter, secretary and general manager. The foregoing and George Hendrie are directors.

State Transportation Co.: John Pridgeon, jr., president; Joseph King, vice president; B. W. Parker, treasurer; A. A. Parker, secretary and general manager; the officers are directors.

Peninsular Transit Co.: A. A. Parker, president and general manager; W. H. Oades, vice president; Harry S. Hodge, treasurer; B. W. Parker, secretary; the officers, with A. R. Munger, are directors.

Parker Transportation Co.: A. A. Parker, president and general manager; A. R. Munger, vice president; B. W. Parker, secretary and treasurer; the officers, with F. B. Gaylord and John S. Quinn, are directors.

Pridgeon Transit Co.: John Pridgeon, jr., president; John S. Quinn, vice president; B. W. Parker, treasurer; A. A. Parker, secretary and manager; the foregoing, with A. R. Munger, are directors.

Northwestern Transportation Co.: H. H. Brown of Cleveland, president; L. C. Waldo, secretary, treasurer and general manager; these, with S. E. Hartnell and C. A. Pratt of Cleveland, are directors.

Roby Transportation Co.: George W. Roby, president; L. C. Waldo, secretary and treasurer; these and S. E. Hartnell are directors.

Buffalo & Duluth Transportation Co.: J. W. Millen, president; W. C. McMillan, vice president; A. A. Parker, treasurer and manager; B. W. Parker, secretary; these and T. H. Newberry and W. K. Anderson are directors.

Hope Transportation Co.: President, Thomas S. Christie; vice president and treasurer, W. R. Stafford, Port Hope, Mich.; manager, John A. Francombe; secretary, Thomas K. Christie; these and C. D. Haywood and M. J. Jenness of Cleveland are directors.

Swain Wrecking Co.: President, L. C. Waldo; vice president, John S. Quinn; secretary and manager, A. A. Parker; treasurer, J. W. Millen. The officers and Martin Swain are the directors.

Red Star line: President, A. A. Parker; vice president, J. W. Millen; treasurer, John Pridgeon, jr.; secretary, W. Howie Muir; general manager, B. W. Parker. The officers, together with C. F. Bielman, are the directors.

White Star line: President, A. A. Parker; vice president, J. W. Millen; treasurer, John Pridgeon, jr.; secretary, C. F. Bielman; manager, B. W. Parker. The officers, together with A. W. Colton and R. T. Gray, are the directors.

Interlake Transportation Co.: President, P. J. Ralph, vice president, C. D. Waterman; secretary and treasurer, H. C. Ralph. The officers are the directors.

Duluth & Atlantic Transportation Co.: President, James McMillan; vice president, Hugh McMillan; secretary and treasurer, W. C. McMillan; general manager, James W. Millen; auditor, George M. Black. These, excepting Mr. Black, are the directors.

Detroit Transportation Co.: President, James McMillan; vice president, Hugh McMillan; secretary and treasurer, W. C. McMillan; general manager, James W. Millen; auditor, George M. Black; these, excepting Mr. Black, are directors.

J. Emory Owen Transportation Co.: President, J. F. Owen; vice president, William J. Gray; secretary, J. C. Johnson. The officers are the directors.

Vulcan Transportation Co.: President, E. T. Peck; vice president, J. B. Baugh; second vice president, S. A. Baugh; secretary and treasurer, James Findlater. The officers are the directors.

Hamtramck Transportation Co.: James McMillan, president; Hugh McMillan, vice president; W. C. McMillan, secretary and treasurer; James W. Millen, manager. The officers are the directors.

Star Line of Steamers.: A. R. Lee, president, treasurer and general manager; F. B. Cole, vice president; C. F. Bielman, secretary; these, with Robert Maxwell and James H. Muir, are the board of directors.

Stewart Transportation Co.: President, George Peck; vice president and general manager, A. E. Stewart; secretary and treasurer, C. F. Bielman; these, with George H. Leshner and John J. Barlum, are directors.

Drydock Navigation Co.: President, A. McVittie; vice president, Frank E. Kirby; secretary and treasurer, Gilbert N. McMillan; these officers are the directors.

Wolverine Steamship Co.: President, J. B. Roby; vice president, W. M. Freer; secretary, treasurer and manager, A. McVittie; these and F. J. Hecker and James McMillan are directors.

Ogdensburg Transit Co.: E. C. Smith, St. Albans, Vt., president; A. McVittie, vice president; F. W. Baldwin, St. Albans, manager; these and six eastern stockholders are directors.

Northern Lakes Steamship Co.: C. A. Black, president; C. B. White, vice president; A. McVittie, secretary, treasurer and manager; these officers are the directors.

ISLANDERS ISOLATED.

Communication between the Beaver and Manitou Islands and the mainland has been cut off and mail cannot now be transported until the ice breaks away. After the ice commenced forming in the main channels and the regular mail boat stopped running, the Cisco took the mail upon special contract the last trip. The people upon Beaver Island will be able to reach the mainland occasionally across the ice, a distance of about 60 miles, to Charlevoix, but even this is not sure because the southwest winds break up the ice in the channel and make it dangerous. They can, however, reach the Wisconsin and north shores and then make their way to Sault Ste. Marie on dog-sleds. But this is a long journey, and from this time until spring the islanders must remain practically cut off from the rest of the world.

LARGEST SHAFT EVER CAST.

The Bethlehem Iron Co. shipped to Cramps' shipyard a few days ago, eight plates weighing 318 tons, for the forward turret of the Alabama.

In two weeks the largest shaft ever made will be shipped by the company to Boston, where it will be used on the 8,000-horse-power engine of the Boston Elevated Railway Co. The shaft is 27 feet 10 inches long, its largest diameter is 37 inches and the end diameter 34 inches. With it will be shipped a fly-wheel, generator hubs and cranks forged on each end. The total weight will be 170,000 lbs., which is too heavy for an ordinary flat car, so the massive piece of machinery will travel on the car that conveyed the big gun to the World's Fair in Chicago.

It is made of fluid compressed nickel steel and oil tempered and annealed. The steel has an elastic limit of 50,000 pounds and a proven elongation of 18 per cent. The company is making eleven similar shafts for the Metropolitan Traction Co., of New York.

BALTIC-BLACK SEA CANAL.

Consul-General Holloway writes from St. Petersburg, November 24, 1898:

During the fall of 1897, the Paris edition of the New York Herald published a statement illustrated with a map showing plans for a ship canal to connect the Baltic Sea with the Black Sea, the least width of which was to be 213 feet at water level and 114 feet at the bottom, so that the largest battle ships could pass through it at a reasonable speed.

This article was reproduced in many leading American newspapers, and I received a large number of letters from engineers, newspapers, contractors and manufacturers of excavating machinery, asking for specifications, cost of labor, details as to contracts, etc. I called on Prince Hilko, Minister of Ways and Communications, handed him a newspaper containing the account, and asked if there was any foundation for the statements contained in the article. He was amused and said:

Some time since, a French engineer called on me with the map from which this is copied, as well as an estimate of the cost of building the same. I asked where he procured the data his estimates were based upon. He said: "From Russian maps." I then informed him that there were no correct maps of that portion of Russia, and his canal was 900 miles short.

The Prince added that the Russian Government had no idea of building such a canal; indeed, he doubted if there was sufficient money in Russia to do so. There had been discussions in the past as to the propriety of building a canal connecting the Black and Baltic seas large enough to enable gunboats to pass through, but its cost prevented its serious consideration.

I think it would be well to ask American papers to correct the impression that Russia is building or intending to build this ship canal.

THE NEW STEAMSHIP DEUTSCHLAND.

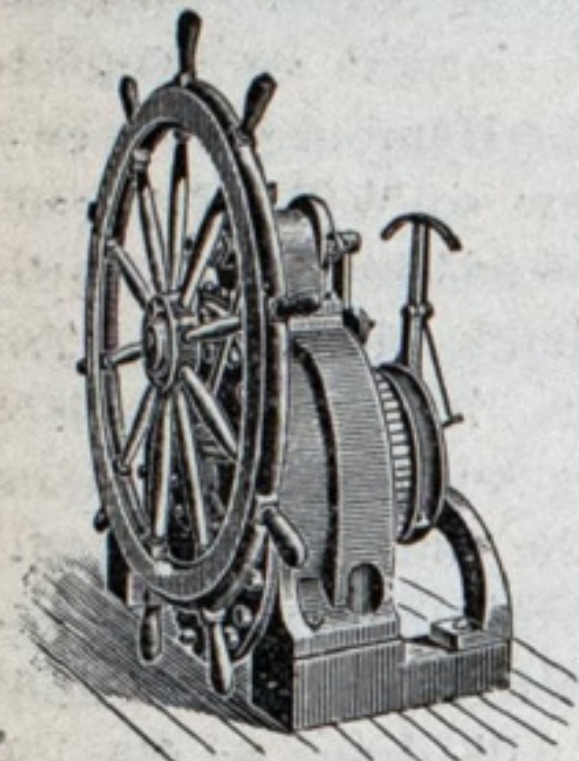
The Germans have proved the efficiency of their shipyards by undertaking the construction of the hugest steamship of modern times. This new giant, which is in process of construction in the Vulcan shipyard at Stettin, will be called Die Deutschland, and will be the largest and fastest steamer in the world. According to the Hamburg Boersenblatt, this floating palace, which is now so well advanced that she will be launched in six months or less, has a length of 622 feet, a beam of 67 feet, and a depth of 44 feet. To form a correct idea of these dimensions, let it be recalled that the Pennsylvania, of the Hamburg-American Line, was the largest steamship in the world at the time of her completion, having a length of 560 feet; yet the Deutschland exceeds her in length by 62 feet. With her bunkers and ballast tanks filled, the Deutschland will draw 29 feet of water. Her coal bunkers will have a capacity of 5,000 tons. She will be provided with two 6-cylindred quadruple-expansion engines, whose aggregate capacity will be 33,000 indicated horse-power. It is difficult to comprehend this enormous power. The steamer Prince Bismarck has 16,500 horse-power, and the steamers Pennsylvania and Pretoria have only 5,500 horse-power each, with which they attain a speed of 13 or 14 knots. Thus the Deutschland will have twice the engine power of the Prince Bismarck, and six times that of the Pennsylvania. Twelve double boilers, each with 8 furnaces, and 4 single boilers, each with 4 furnaces, will be provided to furnish the steam for the mighty engines so that there will be 112 fires in all in the stoke hold. The steam pressure is to be 210 pounds and the contract calls for an average speed of 23 knots per hour, although it is expected that 25 knots may be attained as a record performance. Five dynamos will be used to run the electric lights. Twenty-six life-boats will be provided—18 of steel, two of wood, and the remaining six will be of the collapsible type.

A better idea of the size and power of the Deutschland may be had, perhaps, by comparing her with the City of New York, whose engines develop some 18,000 or 20,000 horse-power, or about 60 per cent. of that developed in the Deutschland. "It is a very easy matter to talk of 18,000 or 20,000 horse-power," says an article in The Locomotive for March, 1889; "but few persons, we think, realize what it means. Assuming that the engines will require 18 pounds of steam per horse-power per hour, then 160 tons of feed water must be pumped into the boilers every hour, and 160 tons of steam will pass through the engines in the same time. In twenty-four hours the feed water will amount to 3,840 tons. A tank measuring 52 feet on the side would hold one day's consumption; or it would fill a length of 493 feet of a canal 40 feet wide and 7 feet deep. Taking the condensing water at thirty times the feed water, it will amount, for a six-days run across the Atlantic, to not less than 691,200 tons. This would fill a cubical tank 295 feet on the side—a tank into which the biggest church in New York, steeple and all, could be put and covered up. The coal consumed will be 400 tons per day. This will require, for its combustion, 8,600 tons of air, occupying a space of 220,000,000 cubic feet. It is impossible for the mind to take in the significance of these latter figures. It may help if we say that if this air were supplied to the ship through a pipe 20 feet in diameter, the air would traverse the pipe at the rate of about 5.6 miles per hour." If the figures here given are all increased by about 70 per cent., some conception may be had of the vast quantities of water and coal and air that must be handled every time the new Deutschland crosses the Atlantic.

RUSSIA'S NEW PORT ON THE ARCTIC.

The Russian government has just established a new port in the northern extremity of the empire, on the Arctic Ocean, which is destined to prove of first rate importance for the economic development of the northwest corner of Russia, viz., the Murman coast, and which, at the same time, will serve as a strategic point of the first order for the Russian Navy. This point is in close proximity to the Norwegian frontier, and in the near neighborhood of a newly-built town; it has been named Port Catherine, and the town will be known under the name of Alexandrovsk. Like St. Petersburg, the town is built on marshy ground, but as this lies well above the sea level, it can be drained and cleansed with facility. The port will be free from ice the greater part of the year, and it is sufficiently spacious and the water sufficiently deep to accommodate a large number of merchant vessels, as well as ironclads belonging to the navy.

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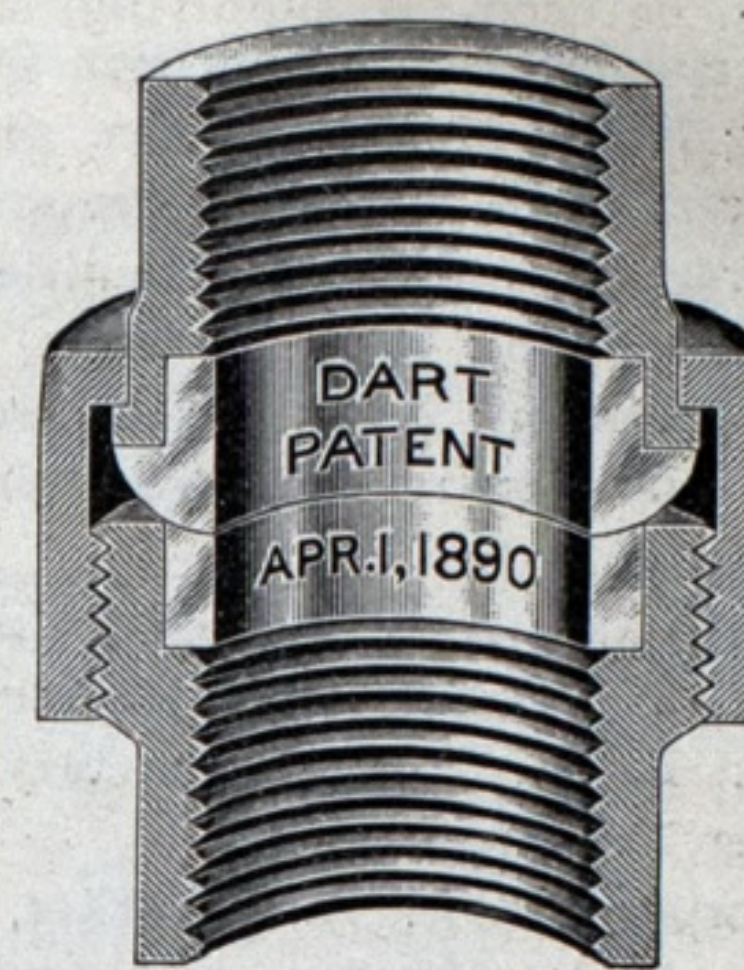
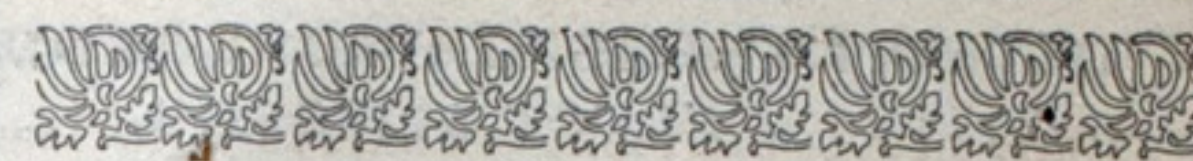
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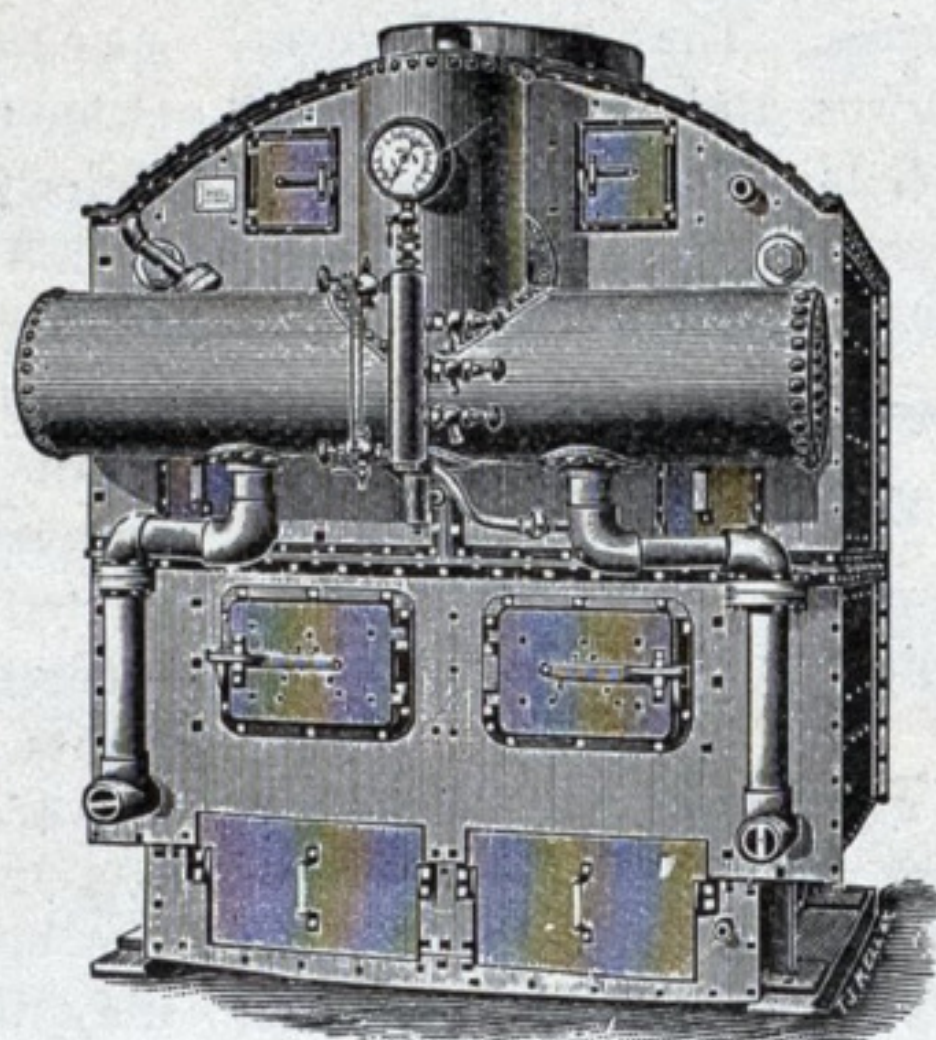
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THE DETROIT INSPECTION SERVICE.

The annual report of the business transacted in the eighth district during the year ended Dec. 31, 1898, as compiled by Capt Westcott, supervising inspector, is as follows:

There were 1,155 steam vessels inspected in the district, comprising the local districts of Detroit, Chicago, Grand Haven, Marquette, Milwaukee and Port Huron, with a total gross tonnage of 421,032.97, or six less than in the previous year. Of these 174, with a tonnage of 80,091.49, were inspected in the Detroit district. A total of 53 vessels, 22,042.50 tons were built, as against 67, with a tonnage of 31,557.98, last year. Of these 8 were built in this district, with a tonnage of 6,776.51. Thirteen vessels, with an aggregate of 4,099.15 tons, went out of service, as against 15 with a tonnage of 6,059.21 in 1897.

During the year 1,427 boilers were inspected, of which 58 were defective and one was condemned, as against 1,377 in 1897, with 57 defective and one condemned.

The officers licensed in the entire district were as follows: Masters and pilots, 69; pilots, 214; joint pilots and engineers, 36; engineers, 265, as against 1,303, 1,677, 124 and 2,525 respectively. This seems to be a great falling off, but it must be borne in mind that in the past the licenses had to be renewed every year, while, since last year, they are being made out for five years, hence the apparent discrepancy.

But few cases of violations of steamboat laws are reported, about the same as last year. Excursion permits were issued as follows: Detroit, 33; Chicago, 32; Grand Haven, 56; Marquette, 11; Milwaukee, 30; Port Huron, 13; a total of 175. Permits to towing steamers to carry persons other than the crews were given to 165 vessels. There were 91 samples tested, taken from material intended for use in the construction of marine boilers, and seven of them failed to come up to the requirements. The supervising inspector made sixty-four visits to passenger and ferry steamers.

The total number of passengers carried by steamers in the district during the year was 7,340,692, of which exactly 75 per cent. were carried in the Detroit district, and the numbers in the various local districts were as follows: Detroit, 5,506,865; Chicago, 259,689; Grand Haven, 656,389; Marquette, 153,459; Milwaukee, 340,048; Port Huron, 424,242. Out of this vast number only one passenger was lost by accidental drowning. Thirty members of crews lost their lives, as follows: By explosion, 1; by wrecked steamers, 18; by fire, 1; by accidental drowning, 5; from miscellaneous causes, 5. The entire amount of property lost was \$787,924, divided as follows: By explosion, \$6,100; by fire, \$249,960;

by collision, \$51,650; by wreck or founder, \$486,214. There were 11 steamers wrecked or foundered, 20 accidents by collision and 21 by fire.

VISIBLE SUPPLY OF GRAIN

As compiled for The Marine Record, by George F. Stone, Secretary Chicago Board of Trade.

| CITIES WHERE STORED. | WHEAT. Bushels. | CORN. Bushels. | OATS. Bushels. | RYE. Bushels. | BARLEY Bushels. |
|-------------------------------|-----------------|----------------|----------------|---------------|-----------------|
| Buffalo..... | 1,374,000 | 166,000 | 143,000 | 27,000 | 975,000 |
| Chicago..... | 3,897,000 | 8,798,000 | 1,378,000 | 444,000 | 724,000 |
| Detroit..... | 339,000 | 423,000 | 6,000 | 12,000 | 71,000 |
| Duluth and Superior | 5,468,000 | 2,823,000 | 949,000 | 169,000 | 350,000 |
| Milwaukee..... | 15,000 | ..... | 4,000 | 2,000 | 87,000 |
| Montreal..... | 18,000 | 21,000 | 194,000 | 4,000 | 9,000 |
| Oswego..... | ..... | 124,000 | ..... | ..... | 80,000 |
| Toledo..... | 514,000 | 761,000 | 52,000 | 3,000 | ..... |
| Toronto..... | 94,000 | ..... | 7,000 | ..... | 31,000 |
| Grand Total..... | 28,984,000 | 28,208,000 | 7,038,000 | 1,567,000 | 3,211,000 |
| Corresponding Date, 1897..... | 36,022,000 | 39,505,000 | 14,766,000 | 3,596,000 | 2,673,000 |
| Increase..... | 401,000 | 1,690,000 | 13,000 | 126,000 | ..... |
| Decrease..... | ..... | ..... | ..... | ..... | 124,000 |

While the stock of grain at lake ports only is here given, the total shows the figures for the entire country except the Pacific Slope.

RUDYARD TO EVANS.

Rudyard Kipling is said to have written the verses printed below and to have sent them, with a set of his books, to Capt. Robley D. Evans, U. S. N. The poet's Zogbaum is Rufus Fairchild Zogbaum, more familiarly known as "Zoggy." He is the most popular outsider who ever found a berth in war or peace on board an American man-of-war, and, besides, he draws uncommon good and sailor-like pictures:

Zogbaum draws with a pencil,
And I do things with a pen;
But you sit up in a conning tower,
Bossing eight hundred men.

Zogbaum takes care of his business,
And I take care of mine;
But you take care of ten thousand tons.
Sky-hooting through the brine.

Zogbaum can handle his shadows,
And I can handle my style;
But you can handle a ten-inch gun
To carry seven mile.

To him that hath shall be given,
And that's why these books are sent
To the man who has lived more stories
Than Zogbaum or I could invent.

SEA POWER ESSENTIAL TO GREATNESS.

Capt. A. T. Mahan of the United States Navy, and one of the members of our Strategy Board in our recent war with Spain, says in his much quoted work on "Sea Power," which has given him deservedly world eminence:

"If sea power be really based upon peaceful and extensive commerce, aptitude for commercial pursuits must be a distinguishing feature of the nations that have at one time or another been great upon the sea. History, almost without exception, affirms that this is true. Save the Romans, there is no marked instance to the contrary."

This utterance emanated from a man trained all of his life in the naval profession, a wonderful observer and a keen student of the great forces, upon the surface and underlying, national power, and with a felicity of expression that has carried conviction wherever his works have been read. The United States possesses a great commerce—only one-third as great per capita, however, as is Great Britain's. The latter nation has no such resources upon which to draw to supply the wants of mankind the world over as we have. Did the people of Great Britain, with their commercial and maritime instinct, possess our resources, we may well wonder how infinitely greater even than it is would her present sea power be.

But it is not for greatness, so much as for defense, as a resource from which to back up our navy with able ships and trained men, that we need a merchant shipping and seamen and firemen. We now have a foreign commerce approximating to two billions of dollars in value, and likely, a decade hence, to be at least half as large again. We shall then have more to defend, and shall it be no more to defend it with than we now have? Shall we drain the nation of its gold, or the equivalent, for the payment of freights to foreign ships, or shall we use our own ships, owned and manned by our own citizens, and thus keep our money at home to employ our own people?

In the official account of the launch of the Oceanic it is stated that an entirely new plan had been adopted, which consists in using wrought-iron triggers for releasing the ship instead of the old daggers which had to be knocked away from under the keel. Concerning this, Mr. P. Phorson, director and works manager of Joseph L. Thompson & Sons, Limited, Sunderland, writes that there is nothing new in the process, inasmuch as in 1892 he took out a patent for it and has used it on over eighty vessels launched since that date at Messrs. Joseph L. Thompson's North Sands shipyard, Sunderland, and he adds that the apparatus is well known to many shipbuilders on the northeast coast.

A NEW LIGHT-HOUSE TENDER.

Many people are looking anxiously to learn that Senator McMillan secured the passage of his bill for the construction of a tender to be used for supplying buoys with gas and carrying stores to the lights and fog signals as well. The boat is very badly needed. Owing to the vast extent of territory covered by this district, from Detroit to the head of the lakes, taking in Lakes St. Clair, Huron and Superior and all the waters between it, cannot be adequately reached by the single tender now in use, the Marigold. She cannot possibly be fitted with storage tanks for the supply of the buoys, as every foot of space on the boat is now taken up with the supplies and coal needed by the lights and fog signals.

In the district there are six buoys, and seven more will probably be added to these by the opening of navigation. To refill these every three or four months the Marigold, in addition to her other duties, is obliged to take up reservoir buoys, anchor them in place of the empty ones, bring the latter back to this port and refill them. This necessitates a double set of buoys at an extra cost of about \$7,000. If the new tender were furnished this would never have to be done, so that the six buoys could be planted immediately in necessary places. Others could later be brought here for reserve purposes.

Both the ninth and tenth districts also want new tenders. It is probable that when built they will be large enough to carry supplies and gas storage tanks as well, and the Dahlia, of the ninth, and Haze of the tenth district, condemned and sold or relegated to construction work. The need for new tenders in those districts, however, is not nearly so pressing as in the eleventh. The ninth is confined to Lake Michigan and the tenth to Lake Erie.

THE COMMODORE PERRY.

The Toledo Bee says: The Secretary of the Navy recently asked that suggestions be made as to a suitable name for the new gunboat planned for the Great Lakes. The Milwaukee Journal is first in the field with a suggestion urging the claims of "Mackinac," the name of the historic island, as a suitable name for the craft. The real historic event that is above all others of importance to the Great Lakes was the victory of Commodore Perry on Lake Erie. The Bee suggests that the new gunboat be named the "Commodore Perry." In so naming the craft the Secretary of the Navy would overlook all localism. No section of the lakes or the territory tributary to them would be favored in the selection of a name and the greatest victory of the greatest officer who ever sailed the fresh water seas would be commemorated. Name her the "Commodore Perry."—Sandusky Register.

THE MARINE RECORD would also say that the new old name would be in no way misapplied.

INNOVATION IN RIVER STEAMERS.

Probably the most notable vessel built during the past year in the shipyards of the Ohio and Mississippi rivers is the steamer Kate Adams, completed some weeks since by Capt. E. Howard, of Jeffersonville, Ind., for the Memphis & Arkansas City Packet Co., of Memphis, Tenn. It is more than probable that construction of the Adams will mark a new era in shipbuilding on rivers. She is the first steel hull side-wheel packet boat built for passenger and freight service on the rivers. As strength has been sacrificed in large wooden steamers of the river type to secure lightness of draught, particular attention has been directed to the results obtained from the adoption of steel for this hull. When this boat went into commission with complete outfit on board, her draught was only 3 feet 3 inches, whereas two boats having wooden hulls, built at the same yard, of the same general dimension, and exactly the same engine and boiler power, each showed under similar conditions a draught of 4 feet 4 inches.

RIPARIAN RIGHTS.

A Milwaukee contemporary thus defines riparian rights in Wisconsin:

1. How far do riparian rights hold on streams, and how far has the owner of the bank got jurisdiction?
2. Who pays for the dredging in the various rivers in the city of Milwaukee?
3. Has anyone except the owner of the bank of a stream the right to cut ice on such stream, and have vessel owners the right to transfer goods from one vessel to another in mid-stream.

Riparian rights extend to the center of the main channel of a navigable stream, and the jurisdiction of the owner under his riparian rights extends to that point opposite the bank he owns. The center of the channel is determined by government survey.

In the city of Milwaukee when a new channel is dredged out and established the owner of the bank pays for the cost of dredging for fifty feet from his dock line. If the channel is more than 100 feet across the city pays for the remainder of the dredging. After the channel is once dredged the city has to keep it dredged and in proper condition from dock line to dock line.

The rights of the public on navigable streams are similar to their rights on a public road. They have the right of easement merely. Any act not necessary in using the stream merely as a highway of traffic or travel is unlawful. Therefore cutting ice on a river would be under the control of the owner of the bank opposite the point where the ice was cut. For the same reason the practice of transferring goods from one vessel to another in midstream would be exceeding the right of easement which the public has on the river.

NOT SUBSIDIZED.

The subsidies granted to ships by the British are not called by that name. They are known as payments made for carrying the mails. The annual charge for the Australian service via the Suez canal is \$827,300, to which Australia contributes \$364,900. The estimated receipts for sea postage amount to \$26,300, so that the annual loss on this service is \$436,000. The payments on account of the service to India and China are about \$1,290,600 per annum, of which about \$360,120 is contributed by India, Hongkong, etc. Some \$140,000 is received for postage, so that the loss here is approximately \$800,000. The New York service for the year 1897-98 will cost \$620,000; the receipts for postage will be about \$200,000, and the loss \$420,000.

The fortnightly service to the West Indies is paid for at the rate of \$390,320 per annum. The contributions for the West Indies and from the postage bring the loss on this service down to \$220,800.

The Canadian-Chinese service costs \$292,000 per annum, of which Canada contributes \$63,000. The receipts for letters carried do not amount to more than \$10,000, so that this service involves the British government in an annual expense of more than \$200,000.

These are the principal subsidies paid by the British government. It would be denied in England that they are subsidies at all, and the denial would perhaps be correct, for their primary object is certainly not the encouragement of the merchant marine. It is necessary to the commercial and political welfare of England that she should maintain rapid and certain communication with her colonies and eastern dependencies, and this is the justification of her heavy payments for the carrying of mails in certain directions. The payments for the New York service have been somewhat increased of late years, on account of contracts by which specified ships shall be transferred to the government on demand, to be used as cruisers.

ADAM SMITH is considered the father of modern political economy by all free traders, and his "Wealth of Nations," published 125 years ago, is still a standard of authority, the most common text book, in use among the free traders of to-day. But in the case of shipping, Adam Smith made an exception in his general advocacy of free trade. He says, in Chapter II., of his "Wealth of Nations:" "There seems, however, to be two cases in which it will generally be advantageous to lay some burden upon foreign, for the encouragement of domestic industry. The first is, when some particular industry is necessary for the defense of the country. The defense of Great Britain, for example, depends very much upon the number of its sailors and shipping. The act of navigation, therefore, very properly endeavors to give the sailors and shipping of Great Britain the monopoly of the trade of their own country, in some cases by absolute prohibitions, and in others by heavy burdens upon the shipping of foreign countries."

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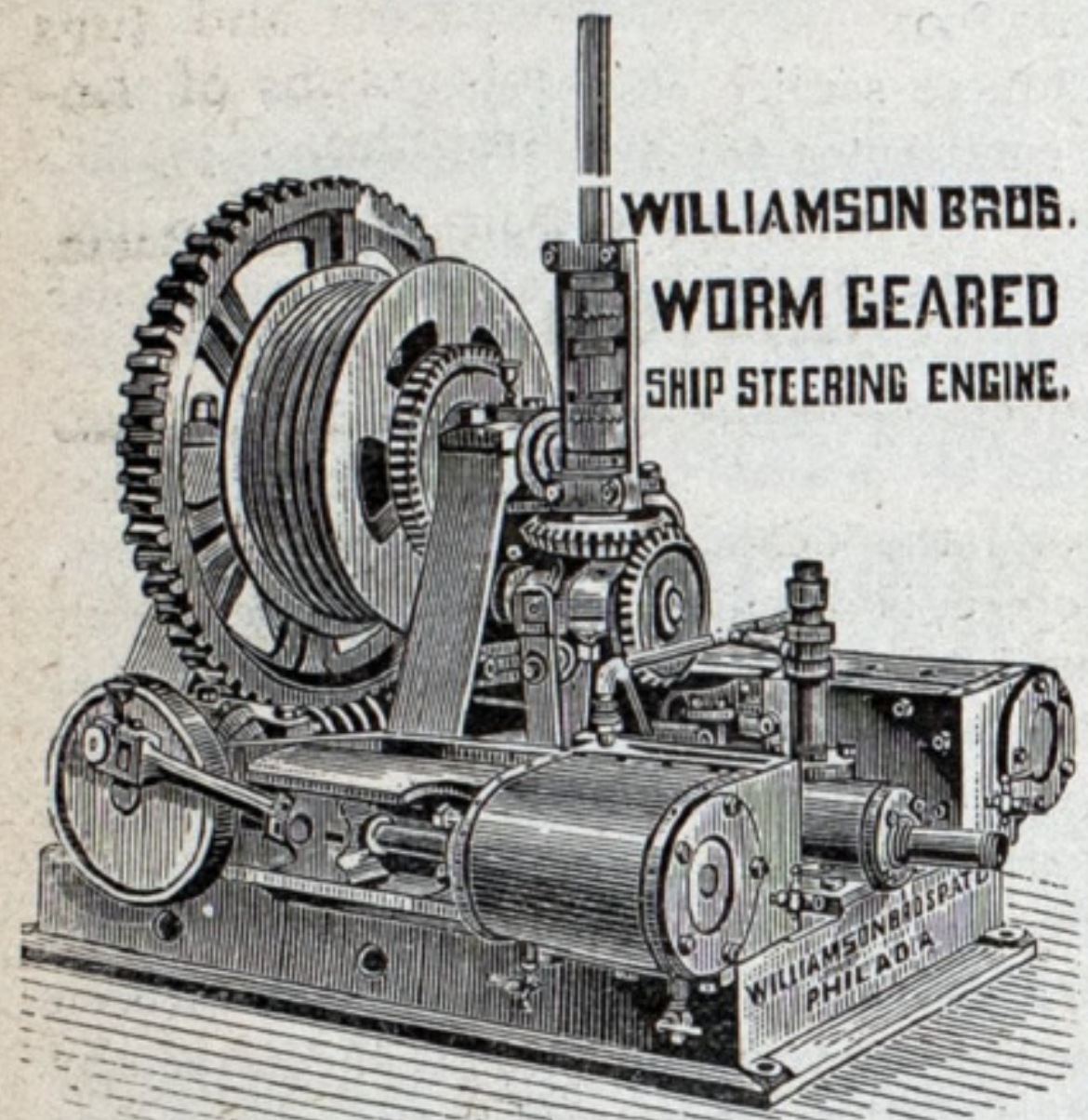
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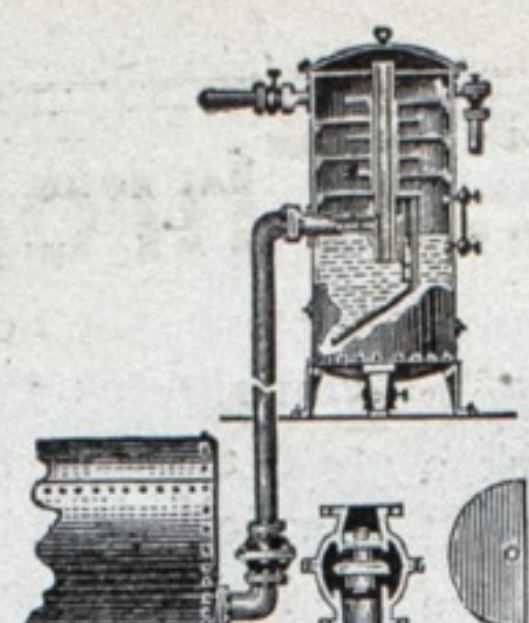


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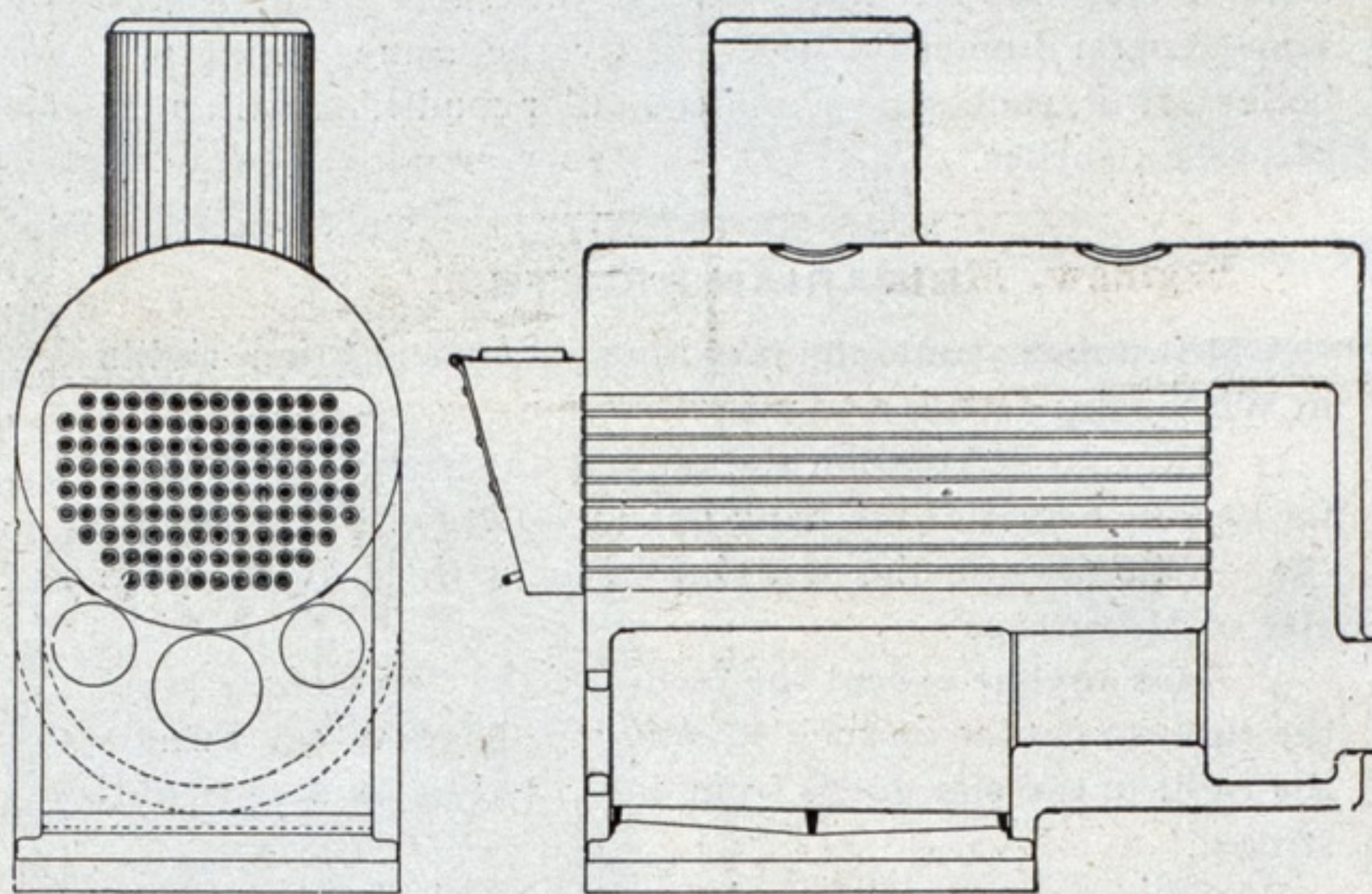
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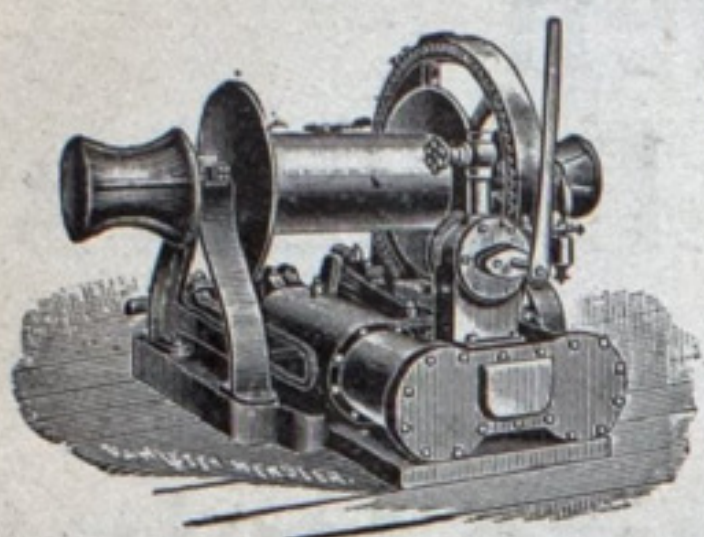
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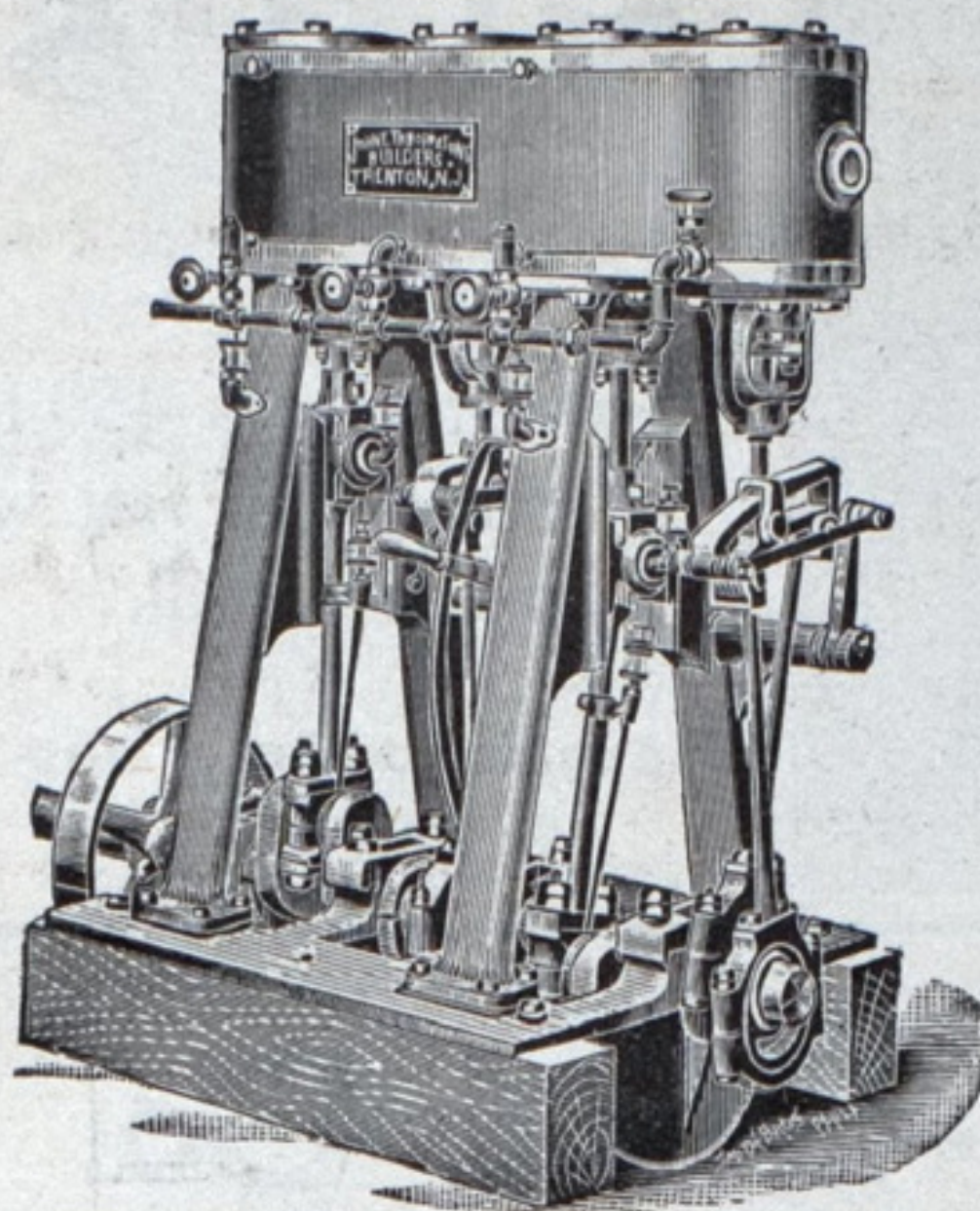
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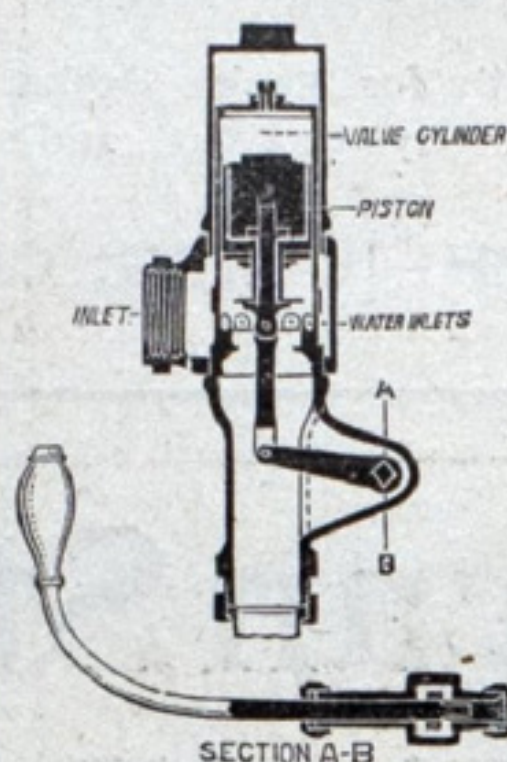
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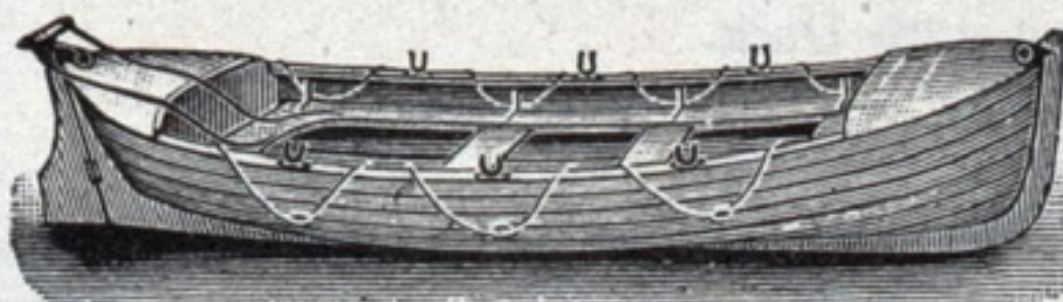
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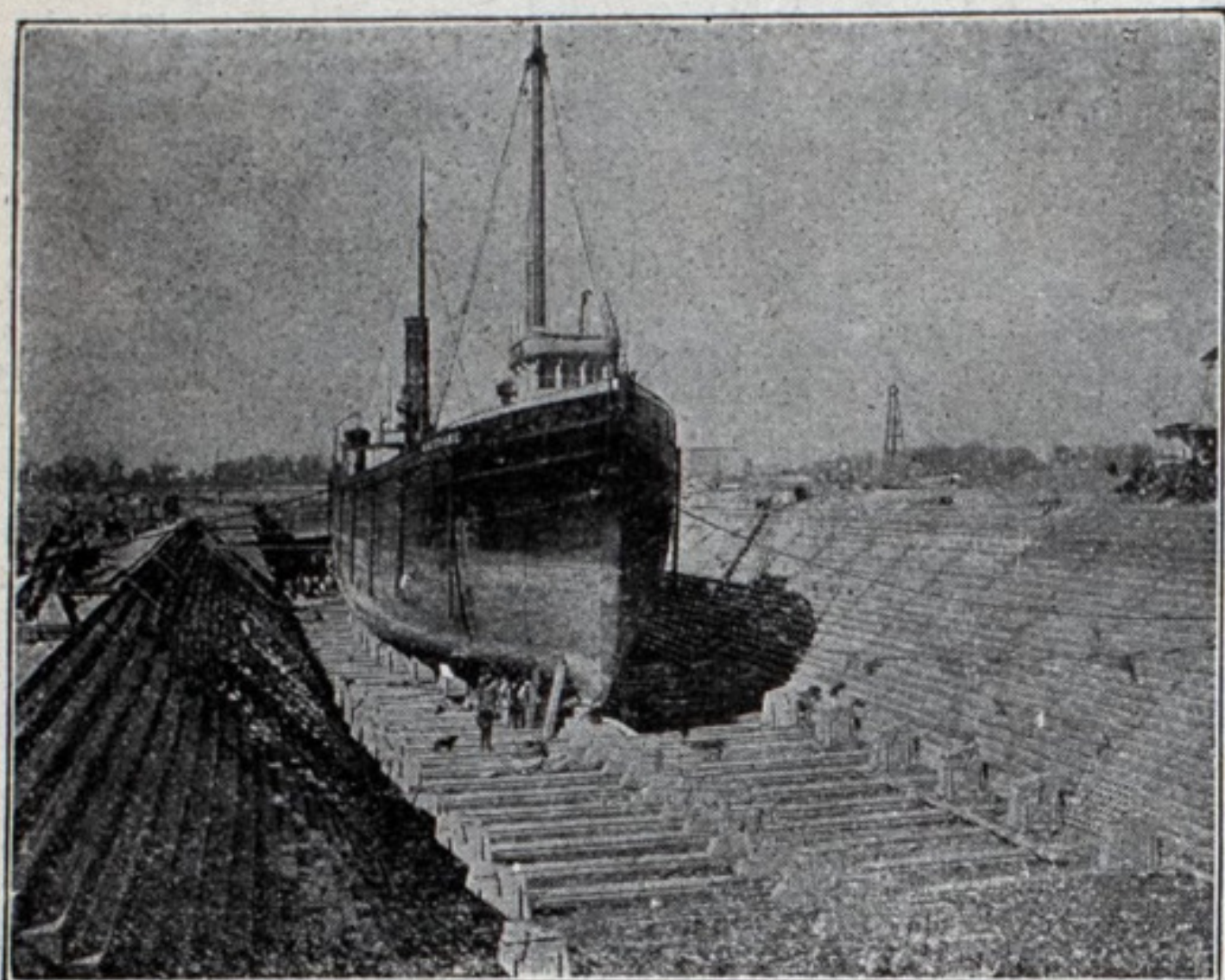
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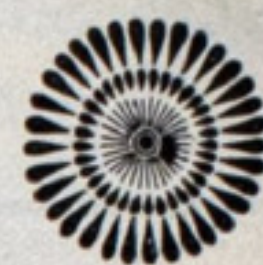
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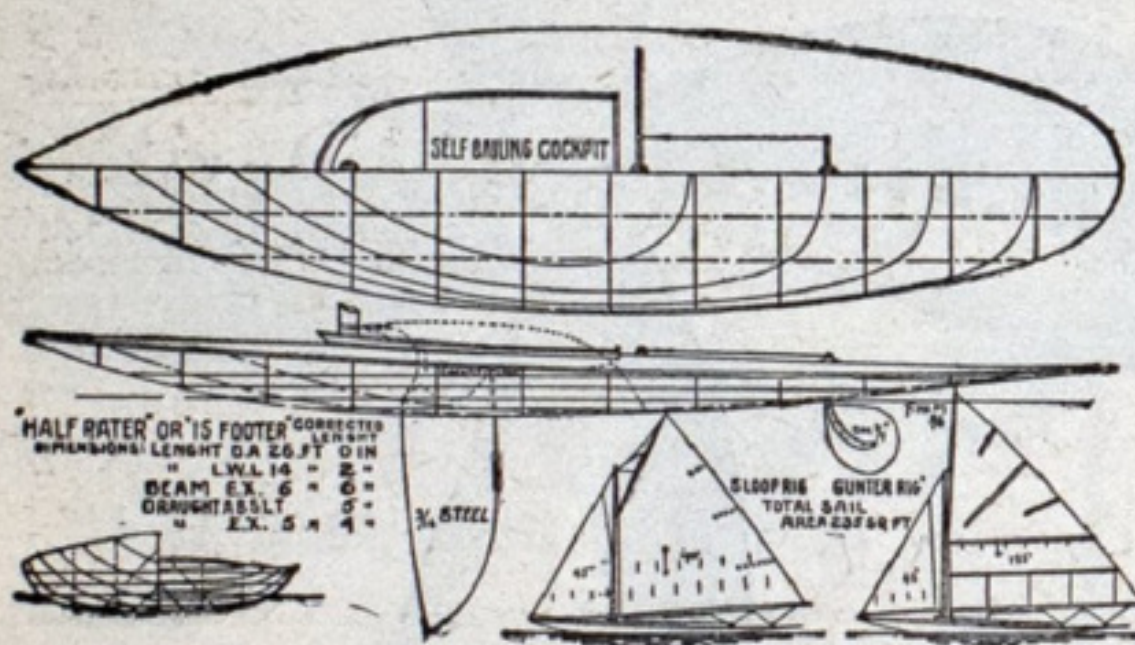
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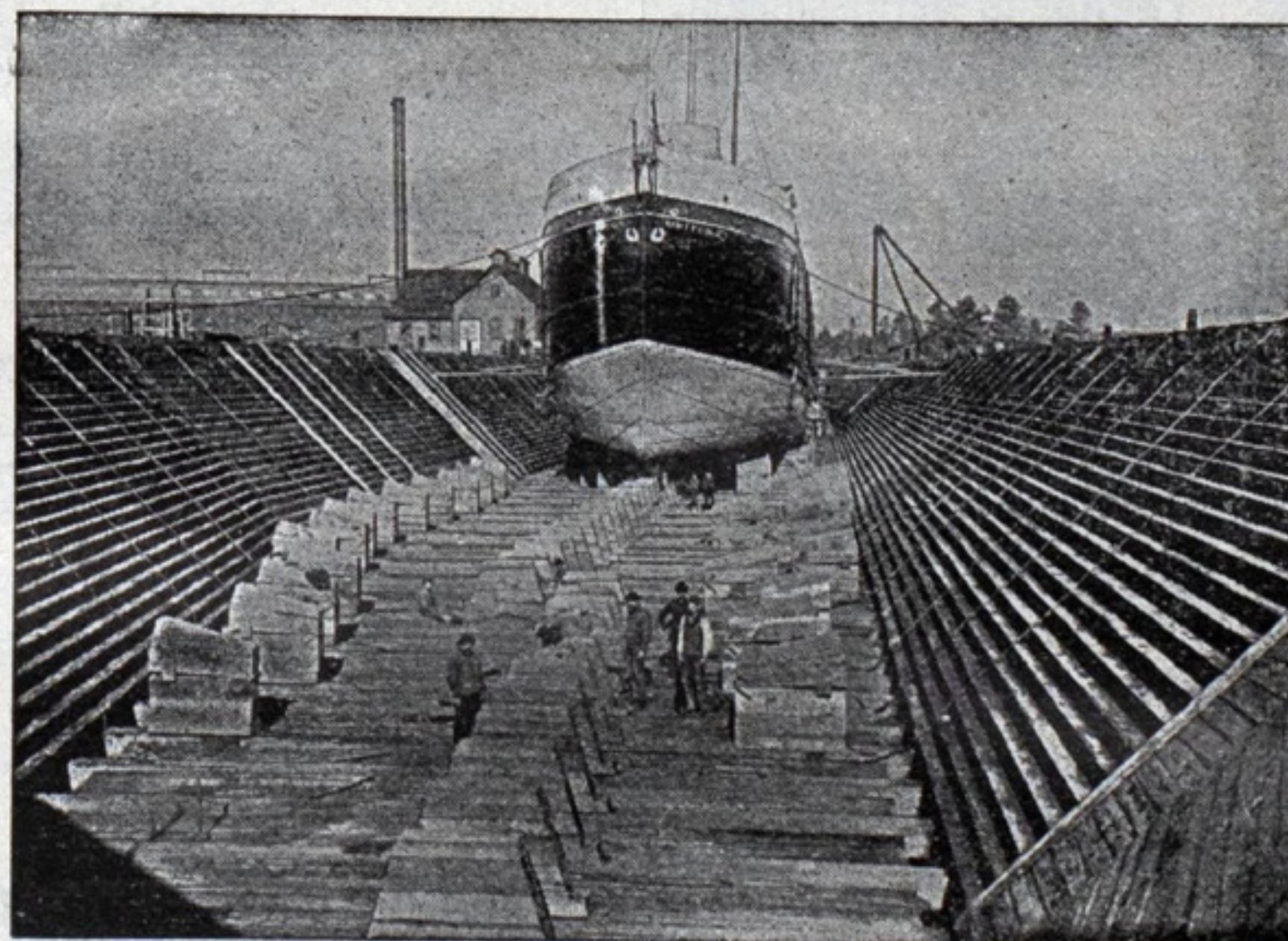
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